

California State Journal of Medicine

ISSUED MONTHLY: OWNED AND PUBLISHED BY THE
MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

Vol. XIV, No. 2

FEBRUARY, 1916

\$1.00 a Year

CONTENTS.

Editorials 43

ORIGINAL ARTICLES:

Traumatism of the Brain. By
Alanson Weeks, M. D. 47

Anoci-Association: A Plea for
the Surgical Patient. By A.
B. Cooke, M. D. 50

Leukopenia. Its Relation to
Orchitis. Case Report. By
Joseph H. Catton, M. D. 53

Clinical Records. By E. S.
Kilgore, M. D. 55

Is Rabies Under Control in
California? By J. C. Gelger,
M. D. 58

The Prognosis of Prostatitis.
By Melville Silverberg, M. D. 60

Criminal Abortions and the
Medical Profession. By Chas.
D. Ball, M. D. 64

The Results of Thirty-five
Transfusions. By Saxton T.
Pope, M. D. 66

(Contents continued on page IX.)

ENTERED AT SAN FRANCISCO, CAL. AS SECOND-CLASS MATTER

JUST READY—AN ORIGINAL WORK

Wadsworth's Postmortem Examinations

This new work is based on Dr. Wadsworth's sixteen years' constant study of the human body and on some 4000 postmortems. It is distinctly different from any other book in the field. So far as possible the principles are presented rather than rules. The *actual technic* is explained in detail—far more fully than in any other work. Many errors, commonly accepted as facts, are pointed out and corrected.

A strong feature, and one of the greatest importance to those doing postmortem work and dissections, is the great attention given to the *interpretation of findings*. Here every detail is forcefully brought out.

The *illustrations* are actual photographs. All were taken by Dr. Wadsworth himself, and for the express purpose of demonstrating the principles involved. They are photographs of the fresh cadaver—not of preserved specimens, and there are over 300 of them. There is added a chapter on *medicolegal topics*, upon which the author is a recognized authority. The subject-matter throughout is based on the long and practical experience and scientific training of the author. Anatomists, surgeons, medical men of all departments will find a great deal of real value. To those who are called upon to perform postmortem examinations this new book is indispensable because it gives them the new technic, the new interpretation of findings, the last word on the subject.

By WILLIAM S. WADSWORTH, M.D., Coroner's Physician of Philadelphia. Octavo, of 600 pages, with 304 original illustrations. Cloth, \$6.00 net; Half-Morocco, \$7.50 net.

Send to-day for a circular

W. B. SAUNDERS COMPANY

West Washington Square, Philadelphia

FRANK F. WEDEKIND---TRUSSES, ELASTIC GOODS
ABDOMINAL SUPPORTERS

(SEE PAGE VIII)

SHERMAN'S BACTERINS



This entire Building used Exclusively for making
Sherman's Bacterins

*Preparations with
a Record for*
RELIABILITY
31 Different Varieties

TYPHOID FEVER
yields more readily to
**TYPHOID
VACCINE**

than to any other remedy.
When given early it often
aborts the course of the disease.

Write for Literature
G. H. SHERMAN, M. D.
DETROIT, MICH.

*Daily Users of Vaccines
use Sherman's*

FRED I. LACKENBACH—Biologic Depot

908 BUTLER BUILDING

SAN FRANCISCO

Dr. H. M. Alexander & Co.

**Pasteur
Anti-Rabic Treatment**

Dr. H. M. Alexander & Co.

**Concentrated
Diphtheria Antitoxin**

Dr. H. M. Alexander & Co.

**Glycerinated
Vaccine Virus**

Dr. H. M. Alexander & Co.

**Immunizing
Typhoid Vaccine**

Prepared under U. S. Government License No. 3
By Dr. H. M. Alexander & Co., Marietta, Pa.

FRED I. LACKENBACH, Biologic Depot

908 BUTLER BLDG.
SUTTER 3121

UNION SQUARE
TELEPHONES 25

SAN FRANCISCO
SUTTER 3122

Pacific Coast Depot for DR. H. M. ALEXANDER & CO.

California State Journal of Medicine.

Owned and Published Monthly by the

Medical Society of the State of California

PHILIP MILLS JONES, M. D., Secretary and Editor

PUBLICATION COMMITTEE

Fayette W. Birtch, M. D.

René Bine, M. D.

Wm. P. Lucas, M. D.

Sol. Hyman, M. D.

Advertising Committee:

R. E. Berling, M. D., Chairman

Thos. E. Shumate, M. D.

ADDRESS ALL COMMUNICATIONS

Secretary State Society, . . .

Butler Building,

State Journal, . . .

San Francisco.

Official Register, . . .

Telephone Douglas 2537

IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. XIV FEBRUARY, 1916

No. 2

EDITORIAL NOTES

FRESNO—1916.

Do not forget that the State Society meets in Fresno, April 18, 19 and 20, 1916, and that it is going to be a record meeting. It is a delightful time of the year, all the main roads and highways will be in the best possible condition, and it is expected that hundreds of members will motor to Fresno and combine a delightful trip to and from, with a delightful time at the meeting. It has been so long since the Society met there that most of our members do not realize or know what the hospitality of Fresno is; you will know after next April, beyond peradventure of a doubt. The Hotel Fresno will be the headquarters hotel, and all the meetings will be held right in the hotel, where there are an ample sufficiency of rooms quite large enough to accommodate the general sessions and all the sections and special meetings that may be arranged. Do not fail to make your plans now, to be with us then. April 18, 19 and 20.

STATUTES OF LIMITATION.

In spite of much that the JOURNAL has printed on this subject, from time to time, there seems still to be some misunderstanding on the part of many of our members as to just what the legal situation is. It has been held, from time immemorial, that personal rights and wrongs could not remain open questions for an indefinitely long period of time. Under the old common law, if a person was assaulted or injured or suffered some personal, physical wrong or injury, and did not take steps

to seek redress from the wrongdoer within "a year and a day," it was held to be an admission that he had no case and thereafter could bring no action for redress. Also, as far back as we may trace it, if one held undisputed possession of land for sixty years, it was held to be a good title to the land. In the passing centuries many changes have been made as to the period of years, but the fundamental principles remain the same to-day as they were centuries ago. By statute, the various states have determined what number of years shall elapse before a particular class of claims shall outlaw, or become void. In California, the time allowed one to bring an action for personal injuries—or torts, as they are called—is almost exactly what it was under the common law—one year. Practically all actions for damages for alleged malpractice are brought "in tort," and therefore they must be brought within one year of the time when the alleged injury was done, or they are void and on simple motion (pleading the statute) the suit is thrown out of court. In the language of the code, "An action for . . . injury to or for the death of one caused by the wrongful act or neglect of another . . ." must be brought within one year.

Now as to accounts or sums due the physician from his patient. Suit must be brought within four years if it is "an action to recover a balance due upon a mutual, open and current account or upon an open book-account."

Suit must be brought within two years, if it is "an action upon a contract, obligation or liability not founded upon an instrument of writing. . . ."

In the ordinary case where the patient has been seen at various times and for various ailments and has paid something on account or some prior bill, the case would fall within the four-year limit. If it were something like a surgical operation, where the surgeon had stated that the operation and subsequent care would cost the patient say \$500, that might be construed as coming within the two-year period. Most actions, however, would not outlaw till the four years had passed; the construction of this section by the courts has been very liberal.

Now what is the import of this? If you sue a patient to collect a bill within one year of the termination of the services, he may in reply bring a suit against you for damages for alleged malpractice, setting forth that you were negligent in your treatment of him and thus claiming damages under the statute; and this suit will have to be regularly defended, tried with the evidence on both sides presented, and, generally, go to a jury for a verdict. If you wait for more than one year before bringing your suit to collect your bill, and the patient in reply files an action for damages, alleging negligence, it is outlawed; for his right to an action for personal injury lapsed at the end of one year.

The State Society has ruled, through its House of Delegates, that it will not defend a suit for alleged malpractice which has its origin in an action to collect a bill, brought within one year from the time of termination of last service.

PROGRAM COMMITTEE.

A number of inquiries are reaching this office as to how a place may be had upon the program for the next meeting, at Fresno, April 18, 19 and 20. The Chairman of the Committee is Dr. Ray Lyman Wilbur and the Secretary is Dr. Harry E. Alderson. At the last meeting the By-Laws were amended so as to place upon the Program Committee the Secretary of the Genito-Urinary Section and the Secretary of the Eye, Ear, Nose and Throat Section. These Secretaries are, respectively, Dr. Wm. E. Stevens, San Francisco, and Dr. Wintermute, San Francisco. Those who intended to present papers at the Fresno meeting had better write to Dr. Wilbur or Dr. Alderson at once. It will probably be a very full program—and a very interesting one; a preliminary outline will be published in the next issue.

THE A. M. A. LAW SUIT!

The facts about the widely heralded suit "against the American Medical Trust" are almost funny. The A. M. A. has not yet been sued and all the legal battle of the last five years was an attempt to compel a district attorney, who knew better, to bring such a fool suit! A short item in a recent issue of the *Journal A. M. A.* explains the whole matter. Here it is:

THE INCORPORATION OF THE AMERICAN MEDICAL ASSOCIATION.

On last Monday, December 20, the Supreme Court of Illinois rendered a ruling—it was not a decision, as the newspapers stated, but simply a ruling—in the case of *Lydston vs. The State's Attorney*. The newspapers, in sweeping statements—inspired?—have carried the impression that the ruling is against the American Medical Association; that the officers, including trustees, are holding their offices illegally; that a new election must be held immediately, etc. Nothing could be farther from the truth. It is the old story; it is merely another step in the case started about the time of the meeting of the American Medical Association in St. Louis in 1910, at which time Lydston tried to compel the state's attorney to bring quo warranto proceedings against the Association. The American Medical Association has not yet technically been brought into the case; thus far the issue has been between Lydston and the state's attorney. The technical announcement of the ruling just made is "Hoyne, State's Attorney, vs. People ex rel; Lydston; petition certiorari denied." The state's attorney tried to get a decision from the Supreme Court, but the Supreme Court declined to hear the case at this time and therefore denied the writ of certiorari.—*Journal A. M. A.*

INDIGENT TUBERCULOTICS.

The problem of the non-resident, indigent tuberculous has been and is one of the hardest problems to work out in the fight against tuberculosis. Who is to care for or treat or properly guide these unfortunates? It seems to be one of those cases of what is everybody's business is nobody's business. A plan has been suggested, however, and agreed upon by the State Board of Health and the California Association for the Study and Prevention of Tuberculosis, which apparently offers at least a partial solution of the difficulty. These two bodies have endorsed, and will ask the next Congress to

enact, a bill providing for the subsidy, as it were, of certain hospitals which come up to standards approved by the Public Health Service and which will care for this class of patients. It seems quite clearly to be a government burden; an indigent non-resident is an anomalous animal; he is really not a just burden to the state he happens to be in, nor can he justly be said to belong as a charge upon the state he has left. If he is made a burden equally to all the states, as all suffer more or less alike relative to their population, etc., his care becomes more equably distributed. It is very much in point of Mr. Spencer's sociologic axiom that "the greater the area over which any given evil is distributed, the less will it be felt by any individual in that area." The tentative bill will be found in full in another part of the *JOURNAL*. We should give it all the help that we can.

SOCIAL INSURANCE.

A bill for state health insurance is to be introduced into the New York legislature this month through the efforts of the American Association for Labor Legislation. This bill provides that all manual workers and all others earning less than \$100 a month shall be insured and that the cost of insurance is to be divided between employer, worker and state. The insurance will provide each workman with medical attention including hospital and nursing care and the necessary medicines and surgical appliances, and with a cash benefit equal to two-thirds of wages for a maximum of twenty-six weeks in a year. The bill offers an insured woman obstetrical aid at her confinement, and offers the family a small funeral benefit should the wage earner die. The insurance is to be carried through mutual associations of employers and employees under state supervision.

The administrative details for providing medical care are to be worked out in consultation with the medical profession. Already the American Medical Association has appointed a committee consisting of Dr. Alexander Lambert of New York, chairman; Dr. Henry B. Favill of Chicago, and Dr. Frederic Cotton of Boston, to co-operate with the American Association for Labor Legislation. Physicians in California which has appointed the first state commission on Social Insurance should be particularly alive to the importance of this movement and alive to the necessity of maintaining close contact with the newly created California commission.

ABUSE OF THE MAILS BY PHYSICIANS; DANGER!!

Dr. Geiger, of the State Health Department, has been good enough to prepare the following remarks on this most important subject. It would be calamitous if, through our own slovenliness, we should be deprived of the privilege of sending specimens by mail:

The increased use of the facilities of the Public Health Laboratory of the California State Board of Health by physicians of the State is commendable. The large number of specimens examined is indicative that the laboratory is serving the public to the maximum of its usefulness in the control of

communicable diseases. In the submitting of these specimens, certain rules and regulations of the United States postal authorities must be conformed with, and only those specimens in regular mailing outfits furnished by the California State Board of Health should be sent through the mails. The postal regulations strictly prescribe the kind of containers which may be used in mailing bacteriologic specimens. Infractions of these rules have occurred so often lately as to make imperative that this warning be given. When one considers that specimens sent illegally are subject to seizure and investigation and subsequent prosecution of the sender by the United States Government, one sees how advisable it is that these rules be followed in their entirety. This laboratory, as a matter of convenience and aid to active co-operation, has established in drug stores in a large number of the towns in California, depositories for the distribution of suitable mailing outfits to health officers, physicians, and veterinarians. Again, outfits will be sent to physicians on request. Mailing outfits may be obtained for forwarding sputum from suspected cases of tuberculosis, sterile swabs for use in suspected cases of diphtheria, outfits for dried blood from suspected cases of typhoid fever, smears of blood from suspected cases of malaria, blood and serum from suspected cases of syphilis, smears of pus from suspected cases of gonococcus infection, and feces from suspected cases of hookworm disease.

The California State Board of Health desires at all times to co-operate with physicians in the state, in doing the very necessary laboratory work for the correlation of clinical findings. It is almost impossible to get the best results when the specimens submitted are not in the proper containers—sometimes leaking, with resulting contamination. The danger of handling specimens, such as leaking bottles containing sputum possibly infected with the tubercle bacilli, and animals' heads, possibly infected with rabies, wrapped in single paper and mailed, is plainly evident and should be discontinued at once.

The writer has a vivid recollection of having opened a package containing a test tube, broken to pieces, with an excised portion and secretions from a bubo of a suspected plague case. There was nothing to give a clue to its contents. This material was proven "plague" on examination.

Reports of the results are sent to the senders of specimens, and when positive evidence of communicable disease is obtained, to the local health officers. The significance of the laboratory report should always be kept clearly in mind, as the purposes of such examinations are the protection, eventually, of the public at large.

The sending in of specimens must conform to the rules of the postal authorities, and hereafter, warnings will be given to physicians sending in specimens in containers that do not come up to the standards prescribed. A warning should be sufficient, but in case of repetition of the offense, the name of the sender will be sent to the postal authorities, for their action. It therefore behooves physicians, health officers, and veterinarians, as a duty, that they send their specimens properly.

MILITARY-MEDICAL PREPAREDNESS.

In the scheme of military preparedness and enlarging of our army, it must be urged that amplification of the medical corps is of the greatest importance. The Southern Medical Association at a recent meeting passed resolutions memorializing Congress on this matter, and the President of the American Medical Association, Dr. Rodman, has urgently requested that all physicians advise their Senators and Congressmen upon this point. It can be admitted that even in these stirring times of peace, our army is under the handicap—amongst others—of a too small medical corps, and should any trouble arise it would be acutely felt. Now is the time, with the enlargement of our military, to see to it that the army is supplied with a medical corps of sufficient size to properly care for the men. Your personal assistance in this matter is requested.

TEST OR ASTROLOGY?

There are few of us, no doubt, who at some period of our lives have not been interested in occult phenomena, and many of us still love to see blindfolded ladies and trained horses do mind-reading "stunts," though perhaps with our superior training we feel that things are not really just what they seem. Laboratory work to the average untrained practitioner is an occult aid to diagnosis, offering him a short but absolutely reliable means of deciding the presence or absence of a specific disease; "yes" or "no" without argument frequently even in cases where prolonged clinical study is of no avail. Certain laboratories, desiring to maintain their self-styled top-notch positions in the community, immediately take up every new test which seems to offer the slightest aid to the diagnostician, without waiting for its thorough trial at the hands of trained workers. And there are many practitioners, no doubt, who, rather than give patients a thorough clinical investigation, fall for this sort of thing. It is unfortunate that the laboratory men themselves should encourage this. It means more work for them, to be sure.

One of the latest tests exploited is the Abderhalden reaction. Widely heralded at first, this test is still advertised at \$5.00 per, particularly in the diagnosis of cancer and pregnancy. Let us quickly avail ourselves of this opportunity before these offers are withdrawn, or perhaps before reading the following from a most interesting article recently published on the Present Status of the Abderhalden Reaction by J. Bronfenbrenner, Ph. D.; *Journal of Laboratory and Clinical Medicine*:

"If in performing the test one follows all the precautions prescribed for this method, if one, in addition, is able to control every step as the necessity arises, even beyond the prescribed procedure, one may obtain very satisfactory results in a number of cases. . . . The test still remains comparatively useful in special cases when the results obtained may justify the expenditure of time of a highly trained worker, but even there, I feel, though often correct, the results should be taken with reserve. As it stands as the present, the Ab-

derhalden reaction has only a scientific interest . . . its main value is in the fact that it stimulated the studying of the fermentative activities of the body fluids and especially of the blood."

N. B.—It will be noticed that this is a somewhat different conclusion than that published on page 28 of last month's JOURNAL. We would suggest that everyone read the original article quoted.

WHAT WE SHOULD KNOW.

The following very important statement of a number of essential things which we should know, and not forget, in connection with the Industrial Accident Law, is very gladly printed. Also, on another page, will be found an abstract of the Report of the Commission which contains much matter of interest. Very soon we shall have sickness insurance also, and we might as well get used to learning about these things first as last:

Some Things About Their Obligations Under the Compensation Act, Which Physicians in the State Should Know.

1. Every industrial injury, accident or occupational disease must be reported when brought to the attention of physicians or surgeons.
2. Failure to make such report is punishable by a fine of not less than ten nor more than one hundred dollars.
3. If the injury is serious enough to require skilled attention, the case must be reported within ten days, irrespective of the lack of money considerations for service rendered the injured. This applies particularly to physicians who operate hospitals, sometime of an emergency nature, in connection with large plants and when their services are secured by contract or monthly stipends or otherwise.
4. The question of the loss of time due to the injury, or whether the injured's employer is exempted from the compensation provisions of the Act, or whether the employer carries insurance coverage, does not affect the obligations of the attending physician or surgeon to make report to the Industrial Accident Commission at 525 Market Street, San Francisco.
5. Physicians contracting or otherwise selling their services to Insurance Companies privately owned, or to the State Compensation Insurance Fund (which Fund has offices in the Underwood Building at 525 Market Street, San Francisco), must make reports on blanks furnished them by the Industrial Accident Commission, notwithstanding the fact that they may have been required to make similar reports to such insurance companies. Care should be exercised in forwarding these reports to the proper companies and the Commission or else action may be delayed indefinitely.
6. Only one report should be filed with the Industrial Accident Commission unless the injury results in loss of life or leaves permanent physical impairment. The State Compensation Insurance Fund and other Insurance Companies may require as many reports as are necessary for their purposes.
7. Industrial injuries to employees engaged in

farming and domestic labor must be reported in like manner of the unexempted classes of employment.

8. Injuries to hospital employees whose injuries arise out of or during their course of employment, although they may be serving without definite compensation, must also be reported.

9. *The term compensation includes the money paid for medical services, and under the provision of section (16), sub-section (1), physicians may be denied payment for their services unless bills are presented to the proper employer or his insurance carrier, and satisfactory settlement reached before the Statute of Limitations becomes operative, which it does in six months from date of injury.*

10. Where physicians encounter difficulty in settlements for their services, recourse to the judgment of the Industrial Accident Commission may be had by addressing their complaints in detail to the Secretary of the Commission, Mr. H. L. White.

11. If medical advice is desired or controversies of a medical nature arise, such communications, if directed to the attention of the Commission's Medical Director, Dr. Morton R. Gibbons, will receive prompt and courteous attention.

12. When a physician is interested in a case pending in the claims department of the Commission, and X-ray plates or additional data is sent the Commission, all details should accompany such plates or data so that identification may be easy. Such data or plates should be marked for the attention of the Medical Director or the manager of the Compensation Department, Mr. F. B. Lord.

13. Under no circumstances should informal data or plates be submitted without sufficient identification marks, and instructions regarding their disposition.

14. Physicians rendering services to employers who carry insurance with the State Fund should look either to the employer or to the State Compensation Insurance Fund for settlements for services, and not to the Industrial Accident Commission, unless a controversy arises over such claim.

Supplies of report blanks and copies of the law will be furnished upon application, and relevant inquiries in relation to the operations of the law will be given cheerful attention by the Commission.

FRESNO HOTELS

APRIL 18, 19, 20, 1916

Make Your Reservations Now!

HOTEL FRESNO
THE SEQUOIA
THE HUGHES HOTEL

Rates: All European plan, from \$1.50 up.

Or, write the Secretary of the Local Committee of Arrangements, Dr. Kenneth J. Stanford, Fresno.

Do not delay; there will be a big crowd.

ORIGINAL ARTICLES

TRAUMATISM OF THE BRAIN.*

By ALANSON WEEKS, M. D., San Francisco.

In discussing traumatism of the brain, it would be well to keep in mind a few simple facts relating to the anatomy, physiology and pathology of this organ. It is made up of the most delicate tissue, and is most richly supplied with blood. Because of the softness of the tissue, the blood vessels themselves have very little support. It is surrounded by an inelastic membrane, which is again surrounded by bone. When it is injured, it has very little opportunity to give in any direction for the relief of the following edema, except only the removing from the brain cavity the cerebrospinal fluid and the blood in the blood vessels. When one remembers the vital centers protected so well by the skull but so feebly by the tissue of the brain, the symptoms seen in cases of injury are readily understood, but with equal difficulty interpreted.

It is well known that contusion of tissue results in edema, and if great enough to break the blood vessels, in hemorrhage. In the case of the ordinary tissues of the body, which are elastic and can cause very little trouble by their swelling, the result is not serious. In the case of the brain, things are quite different. The contusion of brain tissue, which may not even lead to a well-marked hemorrhage, may result in edema. This edema, because of the lack of support for the soft-walled veins, will infringe upon the outlet of the circulation to a part or parts, while the harder walled arteries are still freely open, resulting in greater venous congestion, and finally, on account of the pressure thus exerted, will reach a time when the arteries themselves will be shut off and an anemia of the brain tissue nearby result. This condition of affairs will be found in all grades in the same brain should the injury be great enough and will account for the errors of judgment when interpreting symptoms.

If a crate of eggs be dropped or thrown upon a hard surface, and the crate then opened, one will discover at times that an egg will be broken in the midst of a number of uninjured eggs, many on the side of the crate which struck the hard surface, and a number on the side of the crate opposite, with here and there an egg broken throughout; which, roughly, fairly illustrates the breaks in brain tissue resulting from trauma.

I have never seen death directly result from a fracture of the vault of the skull, provided the injury was made with a more or less pointed instrument or a rapidly moving object with a glancing blow, where the force was exerted upon a small area of the brain, causing trauma of small moment at the base. A skull thrown against a pavement by an automobile moving rapidly, for instance, because of the slight giving of the bone, may result in no fracture which can be demonstrated; but if the force was sufficient, at operation or autopsy I have seen brains filled with many separate hemorrhages, others with enormous hemor-

rhages, some at the base, some over the silent area of the frontal lobes, some coming from a tear of the middle meningeal, others from a rent in the large sinuses, or from connecting veins, remote from the scene of operation. I have learned to call these brains with such numerous tears of tissue, "addled," because it does seem at times as though the soft brain tissue had been shaken apart everywhere. The symptoms and the time of their development depend entirely upon the extent of the trauma, from simple concussion, to the wild, hopeless appearing symptoms of one of these "addled" brains.

It must be kept in mind that our whole object in the treatment of brain injuries is to prevent the extension of pressure to the vital centers in the bulb.

It has become almost an axiom at the Central Emergency Hospital that, "in case of a so-called fracture of the base of the skull, which requires immediate operation because of the well-marked symptoms of compression, operation is useless, and the case is hopeless." This is because the trauma was so severe that the bulb tissue was torn, and not because the vital centers were pressed upon by extension of swelling from a distant injury.

The extradural hemorrhage usually resulting from a tear in the middle meningeal artery, gives the clearest picture: symptoms of concussion with recovery therefrom and a conscious interval, followed by coma.

Hemorrhages under the dura which, of course, are the commonest, if they happen to be localized, at first give the picture of pressure, with its early paralysis, followed by venous congestion with its irritating symptoms, and later signs of anemia of brain tissue, can be relieved by operation before brain tissue is destroyed and before the pressure has been exerted long enough by the hemorrhage to extend the edema to the vital centers in the bulb, when as a rule operation is too late. Hemorrhages in the brain tissue and in the ventricles are usually a result of the "addled" brain type, and no operation seems of value.

The main points to be kept in mind are these: The usual signs of compression spoken of in most of the books on surgery, such as slow pulse, changes in the pupils and retina, alterations in the breathing and temperature, are all symptoms of trouble in the bulb.

The vital centers are involved and things have gone quite far enough, if not too far. If one remembers that cerebral anemia stimulates the vasomotor centers, and arterial blood pressure rises, while the same anemia causes a paralysis of the respiratory center and respiration will be involved; then, if one waits for the much lauded sign of high blood pressure before operating, the chances are that tissue has been destroyed, and we are too late. I feel certain that operation has not been done early enough when indicated.

Low blood pressure has been the rule in most instances, in my experience, in the type of injury which seems to demand immediate operation. This is probably due to the fact that other vital centers were badly injured at the time of the accident,

* Read before the San Francisco County Medical Society, September 28, 1915.

and the vasomotor center escaped. Blair reports that 63 patients not operated upon who lived more than two hours, 35% survived; of the 42 patients operated upon, 57% survived. In one-half of the successful cases, but in only one-third of the fatal case, the operation had been done within two hours. Of the patients on whom the dura was opened within two hours, 70% survived. Of those not operated upon who survived 24 hours, 58% ultimately recovered; of those operated upon who survived 24 hours, 75% recovered. This shows that the time of operation is important.

Blair thinks the most constant single sign of severe brain injury is disturbance of the pupillary reflex. Of patients giving this sign in the series without operation, 27% recovered; with operation, 57% recovered. I have seen reacting operation in some of the rapidly fatal cases, and abnormal pupils in some who have recovered.

Bleeding from the ears is spoken of as direct evidence of fracture of the skull. It, of course, is to be taken in connection with other symptoms in judging the extent of injury. The final outcome of such injury to the middle ear and drum is best known to ear specialists. The eye specialist will be called on at times to see these patients, and if the case has been left long enough, there will be seen changes in the eye-ground, such as choked disc and small hemorrhages of the retina.

It is well to remember that the operation of decompression, if proper care is used that no blood is lost unnecessarily as the patient is already in shock, can of itself do no harm. The operation will certainly prevent the spread of edema to the vital centers from a disturbed part, and will often save the lives of these patients. It certainly can in no way endanger them.

It might be of interest to report two types of cases.

One patient, J. B., came into the Central Emergency Hospital with a history of having been struck on the head two days before. He was conscious, but said he felt dizzy. His pulse at the time was 80, his blood-pressure 120, the temperature normal, the right pupil somewhat larger than the left, both reacting to light. He was kept for observation, and in the course of some hours became unconscious. His pulse dropped to 60 and he developed a left hemiplegia, complete. I did a right, subtemporal decompression, encountering an enormous extradural clot, so large that one would think it impossible that the brain could be so compressed and not destroyed. This was removed, and in three days the patient was able to walk. This is one of the cases of slow clot formation where the bulb was not injured.

Another case, Mr. A. B., was brought to the Central Emergency Hospital with a history of having one hour before been struck by a "jitney" on Market street. He came in with a blood-pressure of 140, a pulse of 150, which in the course of one hour dropped to 120, was totally unconscious, and the pupils dilated but reacting to light. He was in complete coma on admission and breathing was markedly disturbed. He became very restless, and was one of the cases which seem hopeless from the start. A double decompression operation was done upon him two days afterward which, of course, was too late. The cerebrospinal fluid was clear, and small hemorrhages could be seen in the pia. The patient died, and Dr. Schaller has very kindly brought the brain for you to see. It will be very evident to you

why any operation was useless, and will demonstrate to you after you see the enormous number of hemorrhages throughout this brain, why he appeared hopeless at once. The autopsy showed absolutely no fracture of the skull.

Discussion.

Dr. W. F. Schaller: I wish to show you the hardened brain of one of the cases, Mr. A. B., whose symptomatology has just been detailed by Dr. Weeks. The symptoms left little doubt in our minds that there was a fracture at the base, but after death, which occurred three days after the injury, no fracture was found at autopsy although the periosteum was scraped carefully from the base of the skull and the foramina carefully explored. The fact that there were extensive hemorrhages in the tissues about the orbit and in the conjunctiva on the right side made the absence of any fracture noteworthy. When the brain was removed, small subpial hemorrhages were seen in the hemispheres but the brain was not lacerated, and did not show any marks of violence. The interior of the brain, however, on section after hardening in 10% formalin, showed a remarkable picture. In the anterior portion of both frontal lobes, in the region adjacent to the knee of the corpus callosum, and in the callosal fibres themselves were seen extensive minute hemorrhages which in some areas caused a disorganization of brain tissue. There was no evidence of edema of the brain at autopsy nor could any other pathological condition be found on careful macroscopical serial section. The medulla and midbrain appeared quite normal. Dr. E. S. May of Oakland is making a further histological study of the cerebral cortex.

Dr. Cullen F. Welty: I wish to report some thirty-two cases of fracture of the base of the skull. The diagnosis of fracture of the base of the skull was made by lessened bone conduction on one side or the other, in comparison with the opposite side. Some few years since, it was demonstrated beyond a question of doubt that concussion of the labyrinth will sometimes produce a lessened bone conduction. So, the inference is that they were not all fractures of the base. Ten of these cases were followed by acute purulent otitis media. Of these eight cases had partial or complete facial paralysis. As the suppuration subsided, the facial paralysis cleared. Four cases demanded mastoid operations. One case had sinus thrombosis. I wish to make a statement that I consider very important, and that is, in a given case of fracture of the base followed by acute purulent otitis media, operation should be done on the slightest indication of pus retention (or rather acute mastoiditis with pain), because of the possible communications with the brain cavity itself. Furthermore, I wish to say that a fracture of the base in an individual who has a chronic suppurative otitis media should be operated at once for obvious reasons. I am not familiar with the class of cases Dr. Weeks speaks of. I never see them. My reported cases were from the City and County Hospital, following the great fire. Two cases were private. All the cases that I treated recovered.

Dr. Emmet Rixford: I regret that I did not hear all of Dr. Weeks' paper, for I have gathered from its latter part the probably erroneous impression that Dr. Weeks considered the determination of indication for operation in fracture of the base of the skull a simple matter. With this I can not at all agree for it is contrary to the accepted teaching of those of the greatest experience in this field. As for me, with the growth of my personal experience which now has become considerable, I look with greater and greater apprehension upon the cases of fracture of the skull with traumatic injury of the brain which come to me.

I have had some very hard knocks in this matter. I have operated and been proud to have found a linear fracture of the skull and had the patient die I fear as much from my operation as from

the original injury, and I have had the opposite experience of having advised against operation where autopsy subsequently showed conditions that might have been alleviated by a timely operation.

Not every case of fracture of the skull requires operation, especially fractures of the base. In fact a large proportion of the cases as we meet them have conditions of contusion or laceration of the brain substance for which little or nothing can be done in any operation.

It must be remembered that operation in these cases is not an innocent procedure, it can do many things which are harmful and but few that are helpful. It can sometimes relieve pressure when abnormal pressure exists and that is about all if we except such obvious things as removal of foreign bodies, and of blood clots, elevation of depressed fragments of bone and ligation of bleeding arteries.

From the standpoint of fractures, those of the skull are not of very great interest. The mere fact that a person has a linear fracture of the skull does not at all mean that an operation must be done. It seems to me that the indications for operations must be based upon a clear conception of the particular case in question, as to whether there is an intracranial lesion which is likely to be benefited by operation.

Bleeding from the ear has been mentioned as a particularly valuable symptom. I do not think that it is always necessary to call in a specialist with a tuning fork. I think the man who gives first aid can use an otoscope and see whether the bleeding comes from a ruptured drum or whether it is due to laceration of the soft tissues of the external meatus and due to traction on the external ear. In the absence of rupture of the drumhead, we all know how frequently hemorrhage takes place in the middle ear and pours into the pharynx, the first symptom of which may be vomiting, particularly in children. One skilled in the use of the otoscope can tell from the appearance of the drumhead whether there is blood behind it.

I do not feel, Mr. President, that I can here enter into any intimate discussion of traumatic injuries of the brain; it is too formidable a subject. I think the best I can do is to reiterate the statement I first made—that it is not a simple problem; that much harm can be done by injudicious operating; that it requires the best that is in a man, the best experience, the best knowledge, acumen and courage, to determine his course of action in these cases.

Dr. H. C. Naffziger: I am especially interested in Dr. Weeks' paper. The most noteworthy characteristic of the specimen shown is the hemorrhage in the frontal lobe. The symptomatology of frontal lobe injuries, as described by Phelps, comes at once to mind. This patient had the wild delirium associated with such injury. One particular point to be remembered in brain injuries is the great frequency of contusions and lacerations of the under surface of the frontal, and in the tips of the temporal lobes. The area uncovered by subtemporal decompression is the one we most often wish to explore, in addition to securing relief of pressure and drainage. I feel very much as Dr. Rixford does about the complexity of these brain injuries and believe we confuse ourselves by loose terminology. We talk of fractured skulls and their symptoms and include everything, mixing in symptoms of bone injury with symptoms of brain contusion, laceration and compression. Any one may occur alone. Usually the mere presence of a bone fissure is of no consequence in the absence of cerebral injury. For teaching purposes we have been accustomed to classify, into three types, cases needing surgical treatment: First, the group with depression fractures, including punctured wounds. Second, that group showing symptoms and signs of a localized brain involvement, most often a hemiparesis of varying depths. These may appear early, but most often after hours or days and associated with more or less marked symptoms

of intracranial tension. This is the group with intra and extra dural hemorrhages. Third, those which have simply general symptoms of acute cerebral compression. These are the hardest to interpret. I believe the interpretation of intracranial pressure early, after severe head trauma, to be one of the difficult problems in the diagnosis of brain surgery.

Dr. Stanley Stillman: I suppose the object in bringing up this subject before the Ear, Nose and Throat Section is to bring out points in these cases which are of interest to the ear, nose and throat specialists. There has been some discussion lately on the subject Dr. Welty referred to, in the matter of doing mastoid operations in all cases of fracture of the base, in which hemorrhage from the ear took place. I have an idea that some proposition of that kind was in the minds of those who suggested this paper instead of the subject of fractures of the skull in general, most of which do not concern the nose and throat men. So far as Dr. Welty's statement is concerned I would say that my own experience has mostly been with those cases in which the patient is in no condition to tell whether he has bone conduction or not. There are sufficient symptoms of brain injury or pressure to make the diagnosis and the patient is usually unconscious.

In suspected cases the absence of bone conduction on one side might be a symptom of value should the subsequent developments call for operation.

The mere fact that there is a fissure of the skull is not sufficient reason for doing a mastoid operation or any other operation.

I have seen a number of cases of fissure of the base of the skull without depression, accompanied by symptoms of profound laceration or disintegration of the brain in the vicinity of the fracture, or in a remote part of the brain, but there was nothing that would lead me to suspect that the condition would be improved by operation, nor in the autopsies was there anything to indicate that improvement would have resulted.

In the case of fractured skull with bleeding from the ear with or without escape of cerebrospinal fluid, I certainly would not subject the patient to any operation, except there were other indications. Compression from a blood clot, coming on as Dr. Weeks has stated, is a proper indication and there are others, but unless there were known to be previous mastoid disease or suppurative otitis media I would oppose opening the mastoid.

I think Dr. Weeks spoke of 70 per cent. recoveries after operation. Cases of fracture of the base of the skull with bleeding from the ear, etc., which recovered consciousness within a few hours and afterward showed no sign of pressure, would have recovered anyway I believe and would have been more apt to recover without operation.

My own position in these cases has been against operation unless some definite indication for operation was present.

Dr. H. B. Graham: I think the teaching heretofore has been about as Dr. Stillman has outlined: that is, if you have a reasonably clean ear, and a fracture through the middle ear or labyrinth, it is better surgery to leave that ear alone than to open the antrum, remove the mastoid cells and make drainage.

We take it for granted that the middle ear is an infected area. It has the same bacterial flora as the mouth, and some men claim that whether a suppurative process is going on in the middle ear or not makes no difference—that all of these cases should be treated as a fracture through an infected area and that this should be drained.

Some work along these lines has been done recently in Germany in the ear clinics, and a large number of cases have been operated, regardless of the condition of the patient, where there is a fracture on one side of the head involving the

ear. A recent article reported 125 cases in which group the percentage of recoveries was far greater than in years past. That this is good surgery I think has not been proved as yet. More work has to be done along the line of operating these doubtful cases before it will be proved whether it is necessary to look upon the middle ear as an infected area. My own experience has been very limited—only three cases of non-suppurating ears, all of them were left alone and all recovered. It is needless to say why I left them alone.

Dr. Stillman: The principal point seems to be whether these patients subsequently develop meningitis. I cannot recall, in a number of cases, any that died from meningitis after recovery of consciousness. It has not figured to any extent as the cause of death in my individual list, and I would like to ask if the experience of others has been that meningitis develops as often as we have been taught to fear that it will—so often as to justify a mastoid operation in all cases as a prophylactic measure.

Dr. K. Pischel: I need hardly point out that in these cases an ophthalmoscopic examination should be made. A slight swelling of the disk, if not a choked disk, will let us know whether we have to deal with pressure.

Dr. Weeks, closing discussion: I regret that Dr. Rixford did not come soon enough to find out that I do not think these cases are simple!

As to bleeding from the ear, it may surprise you to know that we have a great number of so-called fractures of the skull with bleeding from the ear, who go home well. I have even seen cases with cerebrospinal fluid coming from the ear who without interference recovered.

The reason I wrote this paper so filled with generalities was that it would take a week of writing to cover the ground explicitly. What I wanted to do was to call attention to the fact that when we call you down to see your patients at the Emergency Hospital, whenever we can find out to whom the patient belongs, the first thing nine of ten doctors do is to begin to paw the head over to find out whether the skull is cracked; and I want to emphasize the fact that it doesn't make a bit of difference whether it is cracked or not. The doctors should keep their minds on fractured brain tissue, not on skulls. The cases that have received trauma to the brain run something over 200 a year in the Emergency Hospitals, and that does not include simple concussion. I believe, as Phelps has brought out, that concussion is a definite injury to brain tissue.

The thing I wanted to bring before this section was that the nose, ear, and eye men are of absolutely no use on earth to the general surgeon when he has an acute trauma of the brain to deal with. We are interested in knowing in time as to the injury to the bulb, and it happens repeatedly that the ear and naso-pharynx will pour blood and they will vomit plenty of old blood which has come from a fracture somewhere in the naso-pharynx or middle ear, and a number of these cases recover. The point is whether the bulb is involved, and if we have evidence that it is being pressed upon, something must be done. For instance, you may have a patient with the usual slow pulse and high blood-pressure of compression, with at the same time a breathing that is wicked, Cheyne-Stokes very marked. It seems reasonable to think that the breathing center itself could have been involved, that the others are beginning to be involved, and that our only hope is to try in some way to relieve the pressure on these tissues. I have operated on some forty cases where on opening the dura the brain poured through the opening. At autopsy these brains were found filled with hemorrhages. It seems to me that the one hope is to relieve that pressure.

The changes in the eye grounds, choked disk and hemorrhages, are certainly late symptoms of

pressure. Things have gone a great distance then. To try whether they can hear the tuning fork is ridiculous! If a man has gone along far enough to have ear infection, that is in the hands of the ear specialist and he ought to relieve it.

Dr. Graham: Do many of these cases that have concussion of the brain die of meningitis?

Dr. Weeks: Death from meningitis is very rare in these cases.

ANOCI-ASSOCIATION: A PLEA FOR THE SURGICAL PATIENT.*

By A. B. COOKE, A. M., M. D.,

Attending Surgeon L. A. County Hospital.

It is not my purpose on this occasion to discuss the theories upon which anoci-association is based, attractive and interesting though they are, nor to trespass upon your time with an unnecessary description of technic; but with the patient and the patient's welfare for our themes to show you, if I may, the practical advantages which the method has to offer.

The biggest words in the vocabulary of the conscientious surgeon, without a doubt, are the safety and comfort of his patients. Dexterity is a gift which all may not possess. Speed in operating may be acquired by cultivation and is desirable enough provided it does not involve a greater loss than gain. But the thing of supreme importance is that no patient shall be exposed to any danger possible to be avoided.

It will not be disputed that shock constitutes the greatest danger of modern surgery. Sepsis and hemorrhage to which so large a per cent. of surgical mortality was formerly due, no longer give us concern. The great question remaining to-day, with the surgeon in advising operation as with the patient in considering it, is with what degree of danger will the proposed work be attended? The average patient does not know this danger as shock; the surgeon, even, may call it or think of it by some other name; but properly understood, shock is what both dread.

I have been surprised more than once recently to hear surgeons of wide experience declare that they do not fear shock,—that they never see it in their work. Such statements, manifestly, can only be based upon an inadequate conception of what the term really means. I do not hesitate to express the positive opinion that some degree of shock attends the performance of every major surgical operation, and this opinion is supported both by weight of authority and by the accepted teachings as to the true nature of the condition. It is true that extreme shock, as marked by collapse on the table and the necessity of resorting to heroic measures to sustain or restore life, is comparatively rarely seen. But how often, I would ask, does the careful surgeon perform major operations of an hour's duration that he does not feel it necessary to institute such post-operative treatment as the application of heat externally, hypodermic medication, the Murphy drip, etc.? Why does he adopt these measures, practically as a routine, in these cases? If the patient's condition is as it should

* Read before the Los Angeles County Medical Society, October 21, 1915.

be, why attempt to promote or hasten reaction? Reaction from *what*?

Let us be honest with ourselves, gentlemen. Call it by whatever name we will, explain the cause and method of its production as we please, we do have some manifestation of surgical shock following major operations virtually without exception.

Then, too, we must remember that there is such a thing as delayed shock which develops occasionally hours after the patient is thought to be entirely out of danger. And again, the neurologists have taught us that the effects of a surgical operation upon the nervous system can never be foretold; that certain patients recover only after prolonged periods of semi-invalidism, and that some never fully recover.

May we not, therefore, justly conclude that there is a definite element of danger attending all major surgery from which it would be highly desirable to protect our patients? Why not face the facts of our daily experience with open minds? I do not care particularly whether this danger is called "shock" or not. But I do earnestly protest against the tendency to evade the issue by the assumption of an attitude of complacent indifference or supercilious skepticism upon the subject.

Another matter about which there seems to be considerable difference of opinion is the question of post-operative pain. One man disposes of the question with a shrug of the shoulders and the flippant assertion that his patients suffer no pain after operation. The majority, however, frankly admit that they are accustomed to tide their patients over the first few days with enough opiate to keep them comfortable. In the former case the helpless patient's outraged sensory apparatus receives neither attention nor recognition; in a few hours or days the pain will subside and the patient will ultimately forget. In the latter class of cases—and I am glad to say that this class represents the rule to which the former class is merely an exception—the claims of humanity do receive attention, and the patient is given the relief from physical suffering to which he is entitled.

But the proposition is not open to debate that surgical patients would be far better off without opiates, if post-operative pain could be controlled or prevented by other means. The effect of these agents is uniformly bad; they check the secretions, favor gaseous accumulation, lower vital resistance, and retard convalescence. Heretofore we have employed them only because, as compared with post-operative discomfort, they have seemed to be the lesser of the two evils. Beneficent though they appear at the time, in the end we find that in using them we have often merely added insult to injury.

Upon these two considerations, the safety and comfort of the surgical patient, anoci-association makes its appeal. Since I had the honor of reading a paper on this subject before you some eighteen months ago I have employed the method in approximately one hundred additional cases.

The list includes only major operations without selection of cases. The operative mortality has been two per cent.—not a phenomenal record, to be sure, but one which, as I have reviewed the individual cases, I am persuaded might have been much less favorable had the method not been used.

In the light of this increased experience let me enumerate some of the many practical advantages of anoci-association from the standpoint of the patient.

1. Safety. The danger of shock is greatly reduced—in the majority of cases practically eliminated. The patient leaves the table fully conscious, pulse of good volume and only slightly if at all accelerated as compared with the initial rate, color normal, and every indication of well being. This consideration alone is more than sufficient to offset any extra trouble which the operator and his assistants may have taken.

2. Comfort. When the method is explained in advance to a patient of average intelligence his natural dread is diminished and he approaches the ordeal in a tranquil and hopeful frame of mind. Following the operation he suffers little pain, consequently opiates are seldom required, nausea and emesis are lessened both in degree and in frequency of occurrence, and the period of convalescence is entered upon with the moral tone unimpaired.

3. Gentleness of manipulation. I regard as one of the distinct and most important advantages of this method the fact that it compels gentleness in every step of the operation. By this means all unnecessary traumatism is avoided, the several organs of elimination are protected from undue burden, and wound repair is favored and hastened. The rough operator, however skilful he may be, cannot expect to employ the method successfully.

4. Gas pains. This most distressing and familiar sequel of abdominal operations is greatly modified, in many cases entirely overcome. This is explained by the scrupulous care and gentleness the method exacts in handling the organs and tissues, and by the avoidance of post-operative opiates it renders possible. If the accumulation of gas is anticipated by securing early evacuation in these cases, this very disagreeable feature will be further provided against.

5. The method broadens the field of surgery in that it makes it possible to extend the benefit of operation to certain cases and conditions which would otherwise involve too great danger. It is no small thing to be able to assure a weakened and suffering patient that he may have the chance to which he is entitled without assuming undue risk from the operation itself.

6. Convalescence is more promptly established, the period of disability appreciably shortened, and the return of normal health much more speedy and certain. Though well aware that I was violating tradition in doing so, I have permitted patients to leave the hospital in twelve days after the most formidable abdominal operations, without occasion for regret in a single instance. In the past

twelve months I have seldom kept any patient in the hospital longer than two weeks.

7. Not the least noteworthy of the advantages of anoci-association is that it provides an effective means whereby surgery may be in large measure relieved of its harshness. From the patient's viewpoint, at least, this is a consideration of tremendous importance. It is to be genuinely deplored that, in the natural course of events, the surgeon almost inevitably becomes more or less callous to the discomfort and distress of his patients. An operation, however slight in itself, is always a momentous affair to the unhappy subject, and he has the right to expect sympathy and to demand that he be given every possible protection from discomfort as well as from danger. The anoci technic, properly applied, affords this protection to an extent heretofore unknown. A patient who has experienced the benefits of this method invariably becomes its grateful champion.

Though the chief purpose of this paper is to emphasize the practical value of anoci-association to the patient, I may be permitted a few special observations with reference to the method itself. Success with the method requires scrupulous attention to each of the several principles upon which it is based. Of these the one most often responsible for unsatisfactory results is the local anesthesia. To accomplish its purpose this must be as complete as though no general anesthetic were to be used. This degree of thoroughness presupposes a skill on the part of the operator which is usually acquired only by much experience. The beginner in the use of local anesthesia cannot hope for perfect results in his first case, nor indeed in his first half dozen cases.

Gentleness in handling all tissues I again call attention to as absolutely essential, otherwise reflex muscular contraction, embarrassed respiration, vasomotor disturbance, etc., will arise to frustrate the whole scheme. Aside from these two points for special caution, there is nothing about the method to stamp it as complicated or to render undertaking it a matter of serious misgiving to any well trained surgeon.

The foregoing represents deliberate conclusions based on my own personal experience in the use of anoci-association. The hopes I entertained when the method was first announced have been fully realized, though candor compels the admission that the results in my earliest cases were not entirely satisfactory. This, I think, must always be so, for the personal equation of the surgeon and the idiosyncrasies of patients must ever remain important factors to be reckoned with in the adoption of a new technic or plan of management.

Current literature has contained much upon the subject in the past two years, some of it favorable, some merely critical, some openly antagonistic. With this you are all familiar. Let me conclude by quoting the opinion of several of our well-known California confreres who have been using the method long enough to justify definite conclusions as to its value. A few weeks ago I wrote to four friends asking them for a brief expression

as to the practical value of anoci-association based on their personal experiences. Following are the replies:

Dr. Wallace J. Terry, San Francisco, Professor of Surgery in the University of California, says: "In reply to your letter of September 7th in regard to anoci-association, I am very glad to state that it has been very satisfactory to me after an extended use of it covering a period of over three years. I have used it in all kinds of operations and employ it in every case where it is possible to do so. I believe that the factors of safety and comfort for the patient far outweigh the additional time which may be required and any inconvenience to which the surgeon may be put. The principal difficulty is in obtaining an anesthetist who can properly give nitrous oxide and oxygen. "I am very glad to know that you continue enthusiastic in its use."

Dr. Thomas O. Burger, San Diego, writes: "In reply to your request for my present views on anoci-association, I am very glad to state that I am carrying it out fully in my work and am more and more convinced of its benefit. It is an improved process, carrying with it less fear, a more safe and pleasant anesthetic, absence of prolonged unconsciousness and vomiting in practically all cases. It is marked by freedom of sequelae as related to the kidneys, lungs, blood and nervous system, meaning less morbidity and less mortality."

Dr. Charles D. Lockwood, Pasadena, says: "Anoci-association, viewed from the standpoint of the patient, is of inestimable value. The relaxation and freedom from pain for the first three days after abdominal operations abrogate at least fifty per cent. of the complications and discomfort suffered by these patients."

Dr. Joseph K. Swindt, Pomona, replied: "Replying to your inquiry, I am pleased to say that, since visiting Dr. Crile's clinic four years ago, I have used anoci-association in the majority of my operations with constantly increasing satisfaction."

"I appreciate the method, both from the standpoint of my own comfort during the operation and of my patient's comfort after the operation. Especially in all abdominal work, the peripheral block of the reflexes gives the surgeon a placid field in which he may deliberately carry out any procedure with a minimum of traumatism from linen and instruments and under a greatly lessened quantity of anesthetic."

"Any one who will employ the technic with the same thoroughness as if intending to operate under local anesthesia will surely find rich reward for his efforts in the freedom from pain and shock experienced by his patient."

"I have never seen the slightest objectionable result from the use of the method."

Testimonials like the above could no doubt be multiplied indefinitely if I knew of all the men who are using the method. But those given are sufficient, certainly, to corroborate the claims I have advanced and of the soundness of which I am convinced.

The relation between patient and surgeon is one of peculiar dependence and responsibility. On the part of the patient it is already ideal as manifested in the confidence he displays in entrusting his life to the surgeon of his choice. On the part of the surgeon the ideal is not even approached unless he adopts the familiar slogan, "safety first," with the addition, comfort second, as representing his unswerving attitude toward the patient.

LEUKOPENIA. ITS RELATION TO ORCHITIS. CASE REPORT.

By JOSEPH H. CATTON, M. D., San Francisco.

This communication suggests that hematogenous infection of the testes is practically always due to organisms which tend to produce a relative or an absolute reduction in the number of polynuclear leukocytes. It considers: (a) the infectious etiology of orchitis, (b) the leukocyte pictures present in these infections, and, (c) the relation between the leukocyte picture and the liability to orchitis.

An organism may reach the testes by extension or through the blood stream. Gonorrheal orchitis results from the former method. This paper will consider the hematogenous infections.

ETIOLOGY OF ORCHITIS.

The most common and most widely recognized infectious cause of orchitis is mumps. Ballenger¹ and Ruhräh² call it the chief cause, numerous others³ mention it, and Dukes,⁴ Higgins⁵ and others⁶ have reported specific cases. The orchitis, although it usually follows the parotitis, may precede⁷ or replace⁸ it.

Orchitis may complicate typhoid.⁹ It is relatively rare, McCrae¹⁰ finding it in only 0.27% of his cases. Beardsley¹¹ reports four cases and reviews the literature to 1908, finding a total of 102 cases reported. It tends to come late in the disease¹⁰ or in convalescence¹².

Craig¹³ finds orchitis a very common complication of malaria but usually obtains a gonorrheal history and doubts whether true malarial orchitis occurs. Thayer¹⁴ admits its occurrence but thinks it the result of mixed infection. It is reported by many¹⁵, however, as a complication peculiar to malaria.

It is well established that orchitis may complicate smallpox.¹⁶ Rogers¹⁷ found it in 48 of 55 smallpox cadavers. Spermatogenesis stops, degenerations similar to those of typhoid take place and pustules may develop.¹⁸

Walker¹⁹ and Osler¹⁹ speak of orchitis as complicating influenza. It has been observed infrequently in scarlet fever.²⁰ It is a rare complication of tonsillar fever.²¹

Virulent pneumonias have been accompanied by orchitis.²² This complication is exceedingly rare, Musser and Norris²³ finding in only 2 cases out of 930. A case reported by Prioleau was fatal.

Orchitis has been observed in pyemia.²⁴ Quenu¹⁷ speaks of the tonsils, parotid and testes acting as depurative organs in overwhelming infections. Burnham²⁵ reports a case of Villanova's suffering from Malta fever in which an orchitis was an early feature. Boral²⁶ finds orchitis one of the complications of typhus in the present war.

An orchitis may appear and disappear quickly in filariasis according to Stiles.²⁷ Manson thinks that some cases of "malarial orchitis" are really filarial infection.

Chronic orchitis may be due to syphilis, tuberculosis or leprosy. The chronic form is seen most strikingly in syphilis²⁸ which is a common cause.²⁹

Tuberculosis is a fairly frequent etiological factor.²⁸ The testes are usually attacked second-

arily³⁰ but may be attacked primarily.³¹ Adami²⁸ makes the point that while in adults the epididymis is usually attacked first, in children before puberty the reverse is true.

Lepra may occur in the testes in the form of a granuloma leading to necrosis.³² Orchitis was rarely a complication at Molokai.³²

LEUKOCYTE PICTURES.

The blood pictures in the infections just listed as causative of orchitis will now be considered showing the tendency toward reduction in the number of granular leukocytes.

Leukocytosis is absent in mumps³³ and there may be a relative mononucleosis.³⁴

It is well established that a leukocytosis is wanting in typhoid³⁵ and that in nearly all cases there is a leukopenia.³⁶ Although the latter has been called a late feature by some observers,³⁷ others³⁸ find it constant, Hultgen³⁹ saying it is present early in marked degree. Some⁴⁰ claim it is a more constant early sign than the Widal test. A relative lymphocytosis is also characteristic of typhoid,⁴¹ due to the marked decrease in the number of polymorphonuclear cells.

Malaria gives no leukocytosis,⁴² and leukopenia is practically constant.⁴³ While Stitt³⁷ finds the leukopenia characteristic of the apyrexial period and Billings of the pyrexial, Türk and others find this feature in both. The granular cells suffer most and there appears therefore a relative increase in the number of hyaline cells. There is usually an increase in the number of large mononuclear cells,⁴⁴ and they may reach as high as 35%.

There may be a polynuclear leukocytosis in smallpox, but Councilman⁴⁵ finds the number of leukocytes normal during the febrile period and that the slight leukocytosis at postulation is due to lymphocytes. Buchanan⁴⁶ says there is a diminution in the percentage of polymorphonuclear cells and a mononuclear increase, and that in the virulent and hemorrhagic cases there may be a leukopenia. Mild cases have been reported with normal or subnormal counts,⁴⁷ and many observers reporting a leukocytosis find the new cells mainly lymphocytes.⁴⁸

There is a leukopenia⁴⁹ or absence of leukocytosis⁵⁰ in uncomplicated influenza. No mention was found of an increase in lymphocytes. There is, however, a tendency toward lymphocyte increase in cases of granular cell decrease.⁵¹

Malta fever gives no leukocytosis⁵² and may give a leukopenia.⁵³

Leukocytosis has been variously reported in typhus fever, but Buchanan⁴⁶ quotes certain observers as finding no leukocytosis and sometimes a leukopenia. Ewing⁵⁰ found no increase in granular cells in 4 cases. Love⁵⁴ finds an increase in large mononuclear cells in non-fatal cases, and Gulland and Goodal⁵⁵ state that while polynuclear leukocytosis is the rule, in the late stages the lymphocytes may reach 50%.

The eosinophilia of filariasis is well known. Stiles²⁷ says a lymphocytic increase of 24% to 40% is characteristic.

No record of a leukocytosis in uncomplicated syphilis was found. Stitt³⁷ says it does not occur. A relative lymphocytosis is more or less constant in the various forms of congenital and acquired syphilis.⁵⁰

Leukopenia⁵⁷ or an absence of leukocytosis⁵¹ is the rule in tuberculosis. Cabot³³ excepts the meningeal form and Wood³³ the meningeal and serosal forms. Emerson³⁰ and Stitt³⁷ say leukopenia is especially characteristic of acute miliary tuberculosis. A relative lymphocytosis tends to be a feature, especially in acute cases⁵⁸ in children⁵¹ and in cases involving the lymphatic apparatus.⁵⁹

Most observers⁶⁰ say a leukocytosis is absent in leprosy. Currie³² says at Molokai there was generally a leukocytosis but a greater increase in the lymphocytes. Gulland and Goodal³³ also report the relative increase in lymphocytes.

Leukocytosis is the rule in scarlet fever which was mentioned above as an infrequent cause of orchitis and so it is notable that in certain forms of scarlet fever there may be observed the decrease in the number of granular cells or the increase in hyaline ones. The leukocytosis may not arrive until late,⁶¹ or if the disease is quite virulent there may be a leukopenia.⁶² With severe infection and low resistance the leukopenia which precedes leukocytosis may persist.⁶¹ Although not the rule, a lymphocytosis may occur in scarlet,⁶¹ especially late.⁶³ Türk finds, on the fifth day, a drop in the number of polynuclear cells and a rapid increase in lymphocytes and eosinophils.

Similarly, tonsillitis usually gives a leukocytosis of the polynuclear variety, but Adami,⁶⁴ Cabot⁶⁵ and Emerson³⁰ call attention to the greater increase in lymphocytes when the cervical glands are involved. It is suggested by the author that it is in just such cases that the testes would be most vulnerable. Stitt³⁷ says enlarged tonsils may give a white count of 10,000 to 15,000, 50% of the cells being lymphocytes.

Most pneumonias are accompanied by a polynuclear leukocytosis, but it may be absent in virulent cases⁶² and a fatal course may be marked by a leukopenia.⁶⁶ There may be a lymphocytosis during prolonged lysis.⁶³

Leukocytosis may be absent in very mild⁴⁰ and very severe⁶⁷ septicemia, or there may be a leukopenia.⁶⁸ It is in the virulent types that orchitis occurs.

The following case shows further the relation between leukocyte picture and testicular affection:

History. A. A., age 30, male. Enters San Francisco Hospital in June, 1915. Complaint, gastro-intestinal upsets. Has had measles, mumps, chicken pox, typhoid and malaria. Had a hard genital sore 10 years ago and three attacks of gonorrheal urethritis. Has used whisky to excess. For about seven years has had attacks of nausea and vomiting, sometimes of large amount of fresh blood. Noted a slightly darkened stool on occasions. Never epigastric pain or tenderness, nor symptoms of hyperchlorhydria, nor definite relation between vomiting and taking of food. Has lost 10 pounds in the last year. Is a sexual pervert.

Physical examination. The liver extends from

the 4th interspace above, to 8 cm. below the costal margin in the mid-clavicular line. Spleen felt 2 cm. below costal margin. There is a small amount of fluid in the abdominal cavity. Each testis is about half the normal size and quite hard.

Blood examinations. The red cell count ranged from 3,000,000 to 4,800,000 per cm. during two months' stay in the hospital. There were no remarkable findings in smears aside from a moderate central pallor of the red cells. The white count averaged 6,000 per ccm. and was as low as 5,000 and 4,500 on occasions. The differential count was not remarkable.

Diagnosis: Alcoholic fatty cirrhosis.

The testes are the seat of atrophy or of hypoplasia, and there is a definite increase in fibrous tissue. There is no history of a definite orchitis although there is abundant etiology for the latter. Six of the seven infections in the case give the blood pictures under consideration and during a stay of two months in the hospital leukopenia was constant.

Consult table for résumé.

	Total Whites	Granulars Rel.	Abs.	Hyalines Rel.	Abs.	G.—H. + Or- chitis
Mumps	=	—	—	+		+
Typhoid ...	—	—	—	+		+
Malaria ...	—	—	—	+		+
Influenza ..	=	—	—			+
Malta fever	—	—	—			+
Typhus	+	—	—	+	+	+
Filariasis ..	+	—	—	+	+	+
Syphilis ...	=	—	—	+		+
Tuberculosis	=	—	—	+		+
Leprosy ...	—	—	—	+	+	+
Regular..	+	—	—	+	+	+
Smallpox...						
Virulent..	—	—	—	+	+	+
Regular..	+	+	+	—	—	+
Scarlet....						
Virulent..	—	—	—	+	+	+
Regular..	+	+	+	—	—	+
Tonsillitis						
with Gran- ular Inv..	+	—	—	+	+	+
Regular..	+	+	+	—	—	+
Pneumonia..						
Virulent..	—	—	—	+	+	+
Regular..	+	+	+	—	—	+
Septicemia..						
Virulent..	—	—	—	+	+	+
The diathesis	—	—	—	+	+	+

Key to chart { = no change.
— decrease in number.
+ increase in number
or
present.

SUMMARY.

1. Hematogenous infection of the testes may occur in mumps, typhoid, malaria, influenza, Malta fever, typhus, filariasis, syphilis, tuberculosis, leprosy and smallpox; and less frequently in scarlet fever, tonsillitis, pneumonia and septicemia.

2. A reduction absolute or relative, in the number of granular leukocytes, is characteristic of the above infections excepting scarlet fever, tonsillitis, pneumonia and septicemia.

3. A reduction absolute or relative, in the number of granular leukocytes does occur under certain conditions in scarlet fever, tonsillitis, pneumonia and septicemia.

4. Even in the absence of a history of orchitis there may be a relation between testicular affection and leukopenia in the case reported.

After a careful consideration of the etiology of orchitis; a study of the leukocyte pictures in the

infections reaching the testes through the blood stream; and the observance of testicular affection in a case with a history of infections belonging almost exclusively to the group under consideration, and at the same time exhibiting a leukopenia—the suggestion is offered that there is a definite relation between testicular affection on the one hand and a disturbance in the normal relation between the number of granular to the number of hyaline leukocytes, i. e. a tendency toward decrease in the number of granular cells and increase in the number of hyaline ones.

References.

1. Ballenger. Genito-urinary diseases and Syphilis. 1913, pgs. 263-264.
2. Rührh. Mumps. Therapieusis of Internal Diseases. Forchheimer. 1913, vol. II, pg. 166.
3. Greene-Brooks. Diseases of the genito-urinary organs and the kidneys. 1912, pg. 577.
- Adami and Nicholls. Principles of Pathology. 1911, vol. II, pg. 846.
- Walker. Genito-urinary Surgery. 1914, pg. 776.
- Dieulafoy. Text Book of Medicine. 1911, vol. II, pg. 1706.
4. Dukes. The incubation of mumps and its Orchitis. Lancet, London, 1906, vol. I, pg. 861.
5. Higgins. Communication. Brit. Med. Jour. 1908, vol. I, pg. 925.
6. Makiow. Communication. Brit. Med. Jour. 1908, vol. I, pg. 988.
- Walsh. Communication. Brit. Med. Jour. 1908, vol. I, pg. 1295.
- Rebaudi. Orchitis in parotitis as cause of sterility. Abs. J. A. M. A., 1907, vols. 49, 96.
- Smith, G. G. Two cases of orchitis due to mumps treated by operation. Ref. J. A. M. A., 1912, vol. 59, pg. 970.
- Hall. The local effect of orchitis in mumps. Abs. Amer. J. Med. Sc., 1912, vol. 144, pg. 312.
- Dieulafoy. Loc. cit. 3.
7. Torpey. Primary orchitis and secondary parotitis. J. A. M. A., 1911, vol. 58, pg. 742.
- Dieulafoy, loc. cit. 3; Higgins, loc. cit. 5; Maldlow, loc. cit. 6; Walsh, loc. cit. 6.
8. Dieulafoy. Loc. cit. 3.
9. Corner-Nitch. The immediate and remote results of high operation for varicocele. Brit. Med. Jour., 1906, vol. I, pg. 191.
- Greene-Brooks, loc. cit. 3; Ballenger, loc. cit. 1; Adami and Nicholls, loc. cit. 3.
10. McCrae. Typhoid Fever. Osler. Modern Medicine, 1913, vol. I, pg. 145.
11. Beardsley. Epididymitis and orchitis complicating typhoid. J. A. M. A., 1908, vol. I, pg. 1015.
12. Dieulafoy. Text Book of Medicine, 1911, vol. II, pg. 1650.
13. Craig. Malarial Fevers. Osler. Modern Medicine, 1914, vol. II, pg. 86.
14. Thayer. Lectures on the Malarial Fevers. 1897, pg. 206.
15. Osler. The Principles and Practice of Medicine. 1912, pg. 254.
- Walker, loc. cit. 3; Ballenger, loc. cit. 1.
16. Chetwood. The Practice of Urology. 1913, pg. 307.
- Adami and Nicholls, loc. cit. 3; Walker, loc. cit. 3; Ballenger, loc. cit. 1; Greene-Brooke, loc. cit. 3.
17. Quénu. Review. Prog. Med. Dec. 1909, pg. 248.
18. Councilman. Smallpox. Osler. Modern Medicine. 1913, vol. I, pg. 791.
19. Osler. The Principles and Practice of Medicine. 1912, pg. 118.
20. Walker, loc. cit. 3; Ballenger, loc. cit. 1.
21. Walker, loc. cit. 3; Ballenger, loc. cit. 1; Rebaudi, loc. cit. 6.
22. Beardsley, loc. cit. 11.
23. Musser and Norris. Lobar Pneumonia. Osler. Modern Medicine. 1913, vol. I, pg. 264.
24. Chetwood, loc. cit. 16.
25. Burnham. Hemocytes and Hemic Infections. 1913, pg. 272.
26. Boral. Kriegstypus. Abs. J. A. M. A., 1915, vol. I, pg. 95.
27. Stiles. Round Worm Infection. Osler. Modern Medicine. 1914, vol. II, pgs. 310 et seq.
28. Adami and Nicholls, loc. cit. 3.
29. Chetwood, loc. cit. 16; Ballenger, loc. cit. 1; Greene-Brooks, loc. cit. 3.
30. Klebs. Tuberculosis. 1909, pg. 778.
- Adami and Nicholls, loc. cit. 3.
31. Greene-Brooks, loc. cit. 3; Ballenger, loc. cit. 1.
32. Currie. Verbal Communication. June, 1915.
33. Adami and Nicholls. Principles of Pathology. 1911, vol. II, pg. 96.
- Cabot. Diseases of the Blood. Osler. Modern Medicine. 1915, vol. IV, 614-615.
- Wood. Chemical and Microscopical Diagnosis. 1905, pgs. 118 et seq.
- Buchanan. The Blood in Health and Disease. 1909, pgs. 155-156.
- Gulland and Goodal. The Blood. 1912, pgs. 62 et seq.
34. Dieulafoy. Text-Book of Medicine. 1911, vol. II, pgs. 1823-1824.
- Gulland and Goodal, loc. cit. 33.
35. Adami and Nicholls, loc. cit. 33; Cabot, loc. cit. 33; Wood, loc. cit. 33; Buchanan, loc. cit. 33.
- Ewing. Clinical Pathology of the Blood. 1903, pgs. 303-305.
36. Emerson. Clinical Diagnosis. 1911, pgs. 562-563.
- Sahlh. Diagnostic Methods. 1909, pgs. 645 et seq.
- Dieulafoy, loc. cit. 34; Ewing, loc. cit. 35; Gulland and Goodal, loc. cit. 33.
37. Stitt. Practical Bacteriology. Blood Work and Animal Parasitology. 1909, pg. 161 et seq.
- Gulland and Goodal, loc. cit. 33.
38. Wilson. Medical Diagnosis. 1909, pg. 262.
- McCrae. Typhoid Fever. Osler. Modern Medicine. 1913, vol. I, pg. 130.
39. Hultgen. The Leukocytes in the Early or Pre-Agglutinative Diagnosis of Typhoid and Paratyphoid Fevers. A. J. M. Sc., 1911, vol. 12, pg. 253.
40. Burnham. Hemocytes and Hemic Infections. 1913, pg. 36 et seq.
41. Hultgen, loc. cit. 39; Dieulafoy, loc. cit. 34; Sahlh, loc. cit. 36; Emerson, loc. cit. 36; Buchanan, loc. cit. 33; Ewing, loc. cit. 35; Gulland and Goodal, loc. cit. 33.
42. Adami and Nicholls, loc. cit. 33; Cabot, loc. cit. 33; Wood, loc. cit. 33; Stitt, loc. cit. 37; Buchanan, loc. cit. 33.
43. Wilson, loc. cit. 38; Dieulafoy, loc. cit. 34; Gulland and Goodal, loc. cit. 33.
44. Buchanan, loc. cit. 33; Dieulafoy, loc. cit. 34; Cabot, loc. cit. 33; Gulland and Goodal, loc. cit. 33; Burnham, loc. cit. 40.
45. Councilman. Smallpox. Osler. Modern Medicine. 1913, vol. I, pg. 808.
46. Buchanan. The Blood in Health and Disease. 1909, pgs. 264-274.
47. Ewing. Clinical Pathology of the Blood. 1903, pgs. 293 et seq.
- Ewing, loc. cit. 47; Gulland and Goodal, loc. cit. 33.
48. Emerson, loc. cit. 36; Gulland and Goodal, loc. cit. 33.
49. Ewing. Clinical Pathology of the Blood. 1903, pgs. 332 et seq.
- Cabot, loc. cit. 33; Adami and Nicholls, loc. cit. 33.
51. Buchanan, loc. cit. 33.
52. Buchanan, loc. cit. 33; Stitt, loc. cit. 37.
53. Wilson, loc. cit. 38; Gulland and Goodal, loc. cit. 33.
54. Love. Jour. Path. and Bacter. 1905, x, pg. —.
55. Gulland and Goodal. The Blood. 1912, pgs. 249 et seq.
56. Dieulafoy, loc. cit. 34; Stitt, loc. cit. 37; Buchanan, loc. cit. 33; Gulland and Goodal, loc. cit. 33.
- Ewing. Clinical Pathology of the Blood. 1903, pg. 169.
57. Wilson, loc. cit. 38; Gulland and Goodal, loc. cit. 33.
58. Gulland and Goodal, loc. cit. 33; Dieulafoy, loc. cit. 34.
59. Ewing, loc. cit. 56.
60. Adami and Nicholls, Cabot and Buchanan, loc. cit. 33.
61. Sahlh, loc. cit. 36.
62. Cabot. Physical Diagnosis. 1909, pg. 481.
63. Ewing, loc. cit. 56.
64. Adami and Nicholls, loc. cit. 33.
65. Cabot. The Lymphocytosis of Infection. A. J. M. Sc., 1913, vol. 145, pg. —.
- Ibid. loc. cit. 33.
66. Burnham, loc. cit. 40; Sahlh, loc. cit. 36.
67. Burnham, loc. cit. 40; Cabot, loc. cit. 62.
68. Dieulafoy, loc. cit. 34.

CLINICAL RECORDS.*

By EUGENE S. KILGORE, M. D., San Francisco.

IV. "THE WARD REFERENCE BOOK."

The duty of hospitals to try out the newer suggestions in diagnostic and therapeutic procedures necessitates their doing many things which are not described in text-books; and it is customary for the workers to keep memoranda of such procedures for handy reference. What often happens, however, is that interns keep notebooks or card systems while they are on service and carry them away or lose them when they leave, so that the routine work of the wards and laboratories is subject to frequent alterations. While changes in technic are often desirable, they should of course be dictated by choice rather than chance, and the

* Fourth article describing the clinical record system in the University of California Hospital. An article by Dr. J. L. Whitney and one by the writer on related subjects appeared in the Boston Medical and Surgical Journal of November 18, 1915. Reprints of the series when complete, together with record forms, etc., will be sent on request.

hospital organization should aim to eliminate to the greatest possible extent the jars incident to changing of staff.

With this in view, a "ward reference book" has been used in the University Hospital during the last three years. Reference has already been made to it several times as containing instructions to interns and nurses in regard to the form of histories, methods of charting, permissible abbreviations, etc., etc. It has an alphabetic index and detachable leaves to facilitate changes; and it is the authorized guide for interns and for students who may be working in the wards.

A copy of the book and of the changes made in it from time to time is incorporated in the bound volumes of the clinical records, so that, as already explained, another important function of this book is to make clear to those in the future who use the records the exact technic of various tests in vogue at any given time. This function of supplementing the permanent clinical records implies a still greater need for continuity of the scheme. *To secure this continuity it is necessary that some person in a permanent salaried position assume the responsibility for it.* The logical one to do this is the custodian of records. When new clinical procedures are introduced, some member of the staff looks up the literature and writes out the reference and a condensed description of the technic and leaves it in the record room where copies are made for the records and for the "ward reference book" (which may thus be kept in duplicate in several convenient places in the hospital). When members of the staff forget to do this the omission is quickly discovered in the filing room by finding unfamiliar tests mentioned in the records, and the responsible persons are asked to supply the needed data.

The following extracts from the ward reference book which, as indicated above, have been supplied by different members of the hospital staff, will serve as illustrations. The list is not complete and is indorsed only as things which were considered worth a trial.

ACIDOSIS.

Alkali Tolerance Test for (Peabody, Arch. of Int. Med., Dec. 1915, p. 958).

Give $2\frac{1}{2}$ gm. sodium bicarbonate by mouth every hour and at the same time collect a specimen of urine. Record grams of soda consumed before the urine (examined fresh) becomes acid to litmus paper. The high normal limit is about 10 gm.

AMBERA STAIN.

(Modified Schaudin.)

1. On slides or cover slips fix for 1 minute at 60° to 70° C. very thin smears from stools with: saturated aqueous mercuric bichlorid sol. 2 parts, absolute alcohol 1 part. Transfer to cold bichlorid alcohol mixture for 10-15 minutes.
2. Place in 60% alcohol for a few minutes.
3. Place in 70% alcohol and a few drops of tincture of iodine for a few minutes.
4. Pass through 70%, 80%, 70%, and 60% alcohol for 3 or 4 minutes each.

5. Place in distilled water for 5 minutes.
6. Stain with much diluted Delafield's hematoxylin 2-4 hours.
7. Rinse in tap water.
8. Differentiate with acid alcohol (0.5-1% HCl).
9. Rinse and wash in tap water one-half hour.
10. Pass through 60%, 70%, 80%, 90%, 95%, and absolute alcohol for 3 or 4 minutes each.

11. Place in Xylol. Mount in Balsam.

Instead of Delafield's hematoxylin in No. 6, may use iron hematoxylin, applying the mordant for 3 hours and the hematoxylin for 20-24 hours. Differentiate very carefully with diluted mordant. Dehydrate and mount as above.

ANEMIA CASES.

Complete counts once a week as long as hemoglobin is below 60%.

Platelet count on entrance. *Coagulation time* and *bleeding time* on entrance. Blood findings to be plotted on special graphic chart.

In making differential counts particular attention is to be paid to the red cells, and the presence or absence of pathological changes noted. The presence or absence of nucleated reds to be noted. If present, their numbers per cu. mm. to be calculated, and they are to be classified (in percentages) as to normoblasts, megaloblasts and intermediates.

BLOOD EXAMINATION.

(See also anemia and leukemia.)

A complete examination (hemoglobin, red and white cell counts, and a differential count) is to be done as routine on entrance in every case in which the hemoglobin is *more than 110%* or less than 75%. In other cases, hemoglobin estimation, white count and differential, are sufficient.

Hemoglobin: Dare instrument to be used.

Red Count: Count four units (consisting of 25 small squares each) in each of two preparations, making sure that Newton's rings are present and that the cells are evenly distributed before counting.

In cases where the red count is very low and the white count very high, as in leukemias, do not try to distinguish reds from whites in the counting chamber, but count every cell and make the correction later by subtracting from the result the white cell count. This is ordinarily not necessary unless the white count is over 100,000.

White Count: Count the cells in one square millimeter in each of two preparations, observing the same precautions as above.

In anemia and leukemia cases, when the differential count shows a large number of nucleated reds to be present, the white count must be corrected to allow for them, since in the counting chamber both whites and nucleated-reds were counted as whites. (E. g., if the count totaled 22,000 cells per cu. mm., and the differential count showed 10 blasts to every 100 leukocytes, the true number of leukocytes per cu. mm. would be 20,000 per cu. mm.)

Differential Count: Use thin smears on cover glasses. Stain with Wright's stain. In ordinary cases count at least 200 leukocytes and indicate number counted in the report. Classify as follows: Neutrophils, Large Mononuclears (including "transitionals"), Lymphocytes, Eosinophiles, and Basophiles (Mastzellen). If myelocytes be present classify them as to neutrophilic or eosinophilic granulation.

In regard to the red cells: always note the average size and whether any of the following pathological changes are present: central pallor, stippling, polychromatophilia, poikilocytosis and anisocytosis. If the red cells appear normal, state that fact on the record. If nucleated reds are present do not tabulate them as percentage of white cells. Mention how many were seen in making the differential count, and if more than one or two, calculate their number per cu. mm.

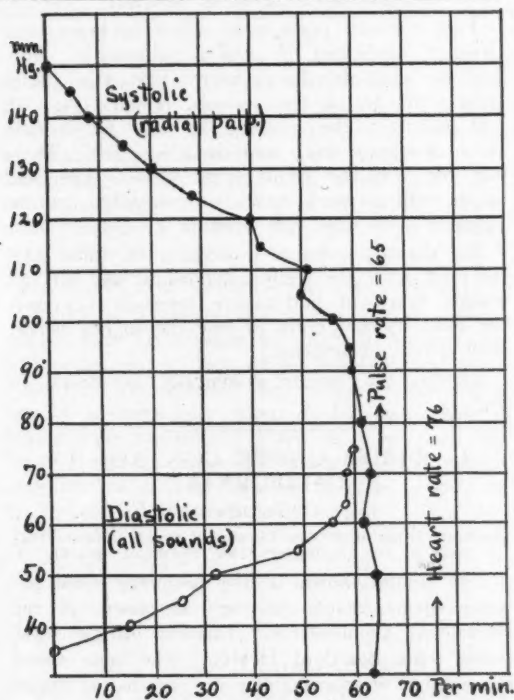


Fig. 1. Showing method of recording fractional blood pressure determinations.

This is done by noting the ratio between them and the leukocytes. If the blasts are numerous, the white count must be corrected to allow for them. (See under "white count.") Nucleated reds are to be classified as follows: *normoblasts*, cells the same size as a normal red cell, with a densely staining, sharply outlined (pyknotic) nucleus; *megaloblasts*, cells in which the nucleus is at least the usual size of a red cell, and the cell body itself considerably larger; *intermediates*, cells a trifle larger than normoblasts, with the nucleus staining less densely and either fragmented, lobulated, or undergoing mitosis, and the cell proto-

plasm usually showing basophilic granulations or polychromatophilia.

Bleeding Time. (Duke, Jr. A. M. A., 1910, lv., 1185.) "A small cut is made in the lobe of the ear. At half-minute intervals the blood is blotted up on absorbent paper. This gives a series of blots of gradually decreasing size. Each blot represents one-half minute's outflow of blood. The rate of decrease in the size of the blots shows the rate of decrease of hemorrhage. The cut should be made of such a size that the first half minute's outflow of blood makes a blot one or two centimeters in diameter. The total duration of such a hemorrhage is called the bleeding time." It is normally one to three minutes.

Coagulation Time. By venous puncture draw 2 c.c. blood into a clean syringe which has been dried, rinsed with albolene, then normal salt solution; and inject it into a clean, dry test-tube about 14 mm. in diameter. The test of coagulation is ability to invert the tube slowly without dislodging the blood. By this technic normal blood in room temperature of 20° C. clots in about 15 minutes. For each degree below this temperature about 1 or 2 minutes will probably be added to the coagulation time. The results, however, should be controlled by a simultaneous determination with normal blood.

Blood Sugar Estimation. (Lewis and Benedict, Jr. Biol. Chem., Jan., 1915.) Discharge exactly 2 c.c. blood obtained by venous aspiration into an Oswald pipette into a 25 c.c. volumetric flask containing 5 c.c. water. Shake thoroughly, then add 15 c.c. saturated aqueous solution of picric acid and 1 or 2 drops of alcohol to dispel the foam. Add water to the 25 c.c. mark, shake, and filter. Measure 8 c.c. aliquots into large test-tubes for duplicate determinations. To the tube being examined add 1 c.c. of a 10% sod. carbonate solution (as well as two glass beads and 2 or 3 drops of mineral oil), and evaporate rapidly over a direct flame until precipitation occurs. Add 3 c.c. water and again boil to dissolve the precipitate and transfer quantitatively to a 10 c.c. volumetric flask. Cool, make up to the mark, shake, and filter through cotton into the colorimeter chamber, and compare at once with the

Permanent Standard Solution.

Picramic acid 0.064 gm.
Sod. carbonate (anhydrous) 0.100 gm.
Water to make 1000. c.c.
Dissolve the picramic acid with the aid of heat. If this standard solution is correct its color will be the same as that of 0.64 mgm. dextrose, 5 c.c. saturated picric acid and 1 c.c. of 10% sod. carbonate when evaporated to precipitation over a free flame and diluted to 10 c.c.

Calculation: Per cent. of dextrose in the blood = $\frac{1}{10}$ the reading of standard solution \div reading of unknown.

Blood Urea Determination. (Modified from Van Slyke and Cullen, Jr. A. M. A., May 16, 1914, p. 1558.) Five c.c. of fresh blood or spinal fluid, measured with an accurate pipette,

are run into a 100 c.c. test-tube, containing 1 c.c. of 3% potassium citrate (to prevent clotting). One-half c.c. of the urease solution and 2 or 3 drops of caprylic alcohol (to prevent foaming) are added. After ten minutes 5 c.c. of the saturated potassium carbonate solution are added, the ammonia is driven by aeration¹ into 10 c.c. of a fiftieth-normal acid (hydrochloric or sulphuric), and the excess acid is titrated back with hundredth-normal sodium hydroxid. Each cubic centimeter of hundredth-normal acid neutralized indicates 0.01 per cent. (grams per hundred cubic centimeters) of urea in the blood, or .0056 per cent. of urea nitrogen.

In case the blood should be one of the rare samples containing over 0.15 per cent. of urea, all the acid will be neutralized, and it will be necessary to repeat the determination, using a sample of only 1 c.c. Fresh blood contains so little ammonia that it can be disregarded.

Preparation of the Urease Enzyme Solution: Two gm. of the enzyme preparation (extracted from the soja bean—obtainable from Arlington Chemical Co., Yonkers, N. Y.) 0.6 gm. of dipotassium hydrogen phosphate, and 0.4 gm. of potassium dihydrogen phosphate, are stirred up with a rod in 10 c.c. of water. The enzyme preparation dissolves in about a minute, forming an opalescent solution. A few floccules of insoluble matter may remain, but the active enzyme all goes into solution at once. The urease can be obtained from the manufacturers in 1 gm. proportions already mixed with the proper amounts of phosphate, so that it is merely necessary to dissolve the mixture in 10 c.c. of water. The acid phosphate serves a double purpose; it accelerates the enzyme action and renders the enzyme solution more stable. If the latter is covered with toluene it will ordinarily hold its activity for a fortnight, but it is safer to use fresh solutions.

BLOOD PRESSURE.

In all cases readings should be recorded on day of entrance, on the following day and not less than once a week thereafter. Patients with systolic pressure over 160 mm. Hg. should have the measurements daily. After proper instruction nurses may be trusted to make these measurements in ordinary cases under the close supervision of the resident staff.

Ordinarily the following technic is to be used: With the patient in the dorsal decubitus (except when orthopnea is present) after at least 10 to 15 minutes' undisturbed rest, the 12 cm. cuff is fitted smoothly around the upper arm. It may be over the thin loose nightgown sleeve, but not over heavier clothing. Use a mercury pressure gage or a dial instrument frequently checked up by comparison with mercury. Determine systolic pressure by radial palpation, reading at the time the first wave is felt during *gradual decompression*,

and record the highest of two or three readings made in quick succession. Then rest the arm by releasing the air from the cuff for a few seconds. Reinflate the cuff and with falling pressure read diastolic blood pressure at the "change of sound" index if this is clear; if not, at the instant of sound disappearance. Record the highest of two or three readings, and always indicate in the report which criterion was used.

Do not try to read blood pressure after the cuff has been inflated continuously for longer than 30 or 40 seconds; let out the air and try again.

The technic described above is sufficient only for cases with fairly regular heart action.

The Fractional Method of Blood Pressure Determination (Kilgore, Arch. of Int. Med., Dec. 1915) should be applied by the intern once a week in cases with auricular fibrillation or other gross arrhythmia. Proceed as follows:

Find the cuff pressure at which no beats come through (indicated by radial palpation). Suppose, for example, this to be 150 mm. Hg. After resting the arm a few seconds, reinflate the cuff and maintain the pressure at 145 for exactly one-half minute and count the waves felt. Again rest the arm and count with pressure 140, and so on until as many waves are counted as can be palpated with zero cuff pressure.

For diastolic pressure proceed in the same way, counting with the stethoscope below the cuff all sounds heard in half-minute intervals (or only the loud staccato notes in case the sounds persist with zero cuff pressure).

Express the results graphically as shown in Fig. 1.

IS RABIES UNDER CONTROL IN CALIFORNIA?

By J. C. GEIGER, M. D.,

Assistant Director of the Bureau of Communicable Diseases of the California State Board of Health.

The results shown in the following table are based upon records of the laboratory of the Bureau of Communicable Diseases of the California State Board of Health. The table shows the number of examinations, by months, of brains proven positive for rabies by microscopical examination and animal inoculation:

A glance at the table above will serve to indicate the steady decrease in the number of examinations for the year 1915 up to date. Coincident with this decrease, the demand for the Pasteur treatment of persons bitten by rabid animals grew less. At the State Hygienic Laboratory and its branches the Pasteur treatment was administered to one person in July, two in August, one in September, none in October, one in November, and none in December, 1915. With the antirabic virus supplied by the State Hygienic Laboratory to the various city health departments, there was treated in Los Angeles one person in July, two in August, none in September, three in October,

¹ Use either compressed air or suction. Let the air be first washed through an acid solution to remove any atmospheric ammonia, then pass through the urease solution, then the hundredth-normal acid solution. In each of the three containers have the inlet tube reach to the bottom.

two in November, and none in December. Virus was supplied to the San Francisco Health Department for two persons in August and one person

1912.		1913.	
January	15	January	22
February	18	February	28
March	15	March	33
April	21	April	25
May	30	May	22
June	14	June	23
July	12	July	22
August	19	August	25
September	15	September	21
October	19	October	35
November	30	November	20
December	36	December	44
Total	244	Total	323

1914.		1915.	
January	43	January	7
February	34	February	7
March	31	March	7
April	11	April	4
May	8	May	7
June	13	June	3
July	4	July	0
August	5	August	0
September	8	September	1
October	4	October	9
November	9	November	2
December	13	December	7
Total	183	Total	57

in December only. No treatments were supplied to either Sacramento or San Diego. Compare these figures with 10 persons treated in July, 19 in August, 24 in September, 41 in October, 17 in November, and 22 in December of the year 1913, and 19 in July, 10 in August, 24 in September, 9 in October, 8 in November, and 7 in December of the year 1914.

WHAT ARE THE REASONS FOR THIS DECREASE?

Rabies is a preventable disease and organized efforts have been made to check its progress in California, but a lack of co-operation and some opposition has retarded the work. When rabies attacks a community where it has not appeared before there are usually a few scattered cases followed later by a sudden sharp epidemic which may involve a large number of cases, depending on the size of the community attacked. The epidemic seems to reach its maximum, then there is an equally sudden fall. The spread of rabies in California has been steady and continuous up to the latter part of the years 1914 and 1915, as shown in the table.

RABIES IN COYOTES IN CALIFORNIA.

The first coyote's head sent to this bureau for examination for rabies came from Tulare county in April, 1913. This coyote's brain proved positive for rabies on microscopical examination, many typical, intracellular Negri bodies being found. This was the only coyote examined until recently.

In February, 1915, two coyote heads were received from Modoc county. Examination of the brains proved negative for rabies by both microscopical examination and animal inoculation. The brain of a coyote trapped in the hills back of Berkeley, Alameda County, was examined for rabies in February, 1915, and found negative on microscopical examination and animal inoculation.

On March 8, 1915, two coyotes' heads were sent by the Forest Supervisor of the Fremont Na-

tional Forest Station, at Lakeview, Lake County, Oregon. Examination of these heads was made as a courtesy for the State Board of Health of Oregon. Examination of the brains showed many typical Negri bodies within the ganglion cells. In October, 1915, six coyotes were examined for rabies, five from Modoc county and one from Lassen county, all proving positive for rabies. In December, 1915, one coyote's head received from Modoc County was found positive. Of the brains examined in October which proved positive for rabies, nine in all, eight came from Modoc and Lassen counties, and in December all came from Modoc County. Every variety of animal is affected, brains being received from coyotes, cows, dogs, a cat and a horse.

The results given above of the examinations of heads sent in recently is confirmatory evidence that rabies does exist to an alarming extent among the coyotes in Modoc and Lassen counties. Rabies in coyotes has been known for some time in Oregon, and reports from Nevada show coyotes affected with the disease there. These states are doing practically nothing to eliminate rabies within their borders. Therefore, it is reasonable to believe that the probable source of infection in Modoc and Lassen counties came from these bordering states, though rabies has previously existed in dogs in Shasta and Siskiyou counties.

Following an investigation of the conditions in Modoc county relative to coyotes being affected by rabies, Dr. W. E. Coppedge, health officer of Modoc county, recommended that a quarantine area be established, to include all of Modoc county, and to apply to domestic cats and dogs. A quarantine was immediately put into effect in accordance with the regulations of the California State Board of Health for the control of rabies in Modoc and Lassen counties. A bounty of \$2.50 per head has been placed upon coyotes by the board of supervisors of Modoc county. Following a conference with the Northern Cattlemen's Association of California, the California State Board of Health began active extermination of coyotes in these counties, being ably assisted by the United States Biological Survey and the Forest Service.

Modoc and Lassen counties undoubtedly face a serious outbreak of rabies and already considerable financial damage has been felt in the loss of a number of live stock. Prompt establishment of the known means of control will undoubtedly serve to ameliorate such conditions and check this new outbreak of the disease in California.

Judging from the statistics quoted, rabies may now be considered under control in California, except in Modoc and Lassen counties, and of the contributing factors the following are probably the most important:

First. That the disease is now endemic in the more populous communities of the State, and

Second. The enforcement of muzzling ordinances in the communities attacked, in accordance

with the regulations of the California State Board of Health.

While it is probable that rabies is under control, this control can be made complete only by the continuous enforcement of stringent muzzling laws over a long period of time.

THE PROGNOSIS OF PROSTATITIS.*

By MELVILLE SILVERBERG, M. D., San Francisco

If diagnosis may be represented as of two dimensions, prognosis may be considered as determining the third. As it projects into the future its influence becomes dynamic and in place of a flat picture one is obtained offering perspective. This casting into relief, as it were, is as essential for the purposes of orientation as range lights to the pilot. In any approach to disease, whether general or specific, the attitude of mind based upon deductions as to its probable course and the possible contingencies defines the views of the present in terms of the future, rationalizes them and stabilizes them. It is this very attitude of mind toward a single pathological condition which the following discussion will attempt to present.

The views expressed are personal, the result of daily observation and study influenced of course by the communications of others on the subject as gathered from the literature. In presenting these views generalization with a broad range of application has been sought rather than a detailed inspection of a series of cases. Let it at least be assumed that this has been done, thus sparing a tedious survey of figures, percentages, etc.

In the desire to attain proficiency in the more technical and scientific branches of urology the result has unfortunately been that lesser ailments amenable to the exercise of ordinary skill are temporarily lacking the important consideration which some of them need. The methods of treatment are still crude and too often ineffectual. The gross empiricism by which they became established still dominates our conception of a proper therapy, which the results justify to a great extent. But on the other hand improved methods of investigation and control have shown that there are limitations upon the possibilities for effectiveness in that cases occasionally fail to respond.

When a pathological condition is commonly met with and has the far-reaching significance of prostatitis, any failure of the accepted measures to combat it occasions regret. That these measures are not entirely satisfactory is rendered evident by the large number of sufferers who pass from competent hands into other competent hands, constantly failing to find a modicum of relief until they eventually become hopelessly discouraged. Prognosis through the very fact of uncertainty therefore becomes a vital problem not only as regards the individual, but also from the standpoint of hygiene and prophylaxis.

The individual being sensitive to any impairment of the sexual organs, the mere consciousness

of chronic disease in itself is sufficient to occasion concern. But whether symptoms be present or absent the demands for alleviation and cure are no less urgent, for prostatitis needs to be controlled in the interests of public welfare. There is little doubt that from it contagion is frequently disseminated by promiscuous intercourse. In fact it may be conservatively stated that, were it not for the prevalence of chronic prostatitis, gonorrhea would cease to be practically universal.

Of far greater moment, because more disastrous in its results, the problem of possible marital infection is one demanding most earnest attention. The situation may become most disconcerting, for the questions involved are vital to the welfare of the individual if contemplating marriage, and frequently disastrous to the integrity of domestic life if marriage has already taken place. How often will a prostatitis remain as the only sequel of an acute urethritis contracted years before and seemingly cured! The task of interdicting marriage under such circumstances to a young man, who may be otherwise preeminently fit, is a most unpleasant one. But when after a happily consummated marriage a long dormant pathological process, awakening, threatens to disturb the serenity of conjugal life, the situation is to be decidedly deprecated, commanding unusual sympathy.

It will thus be seen that the proposition of prognosis enters as a consideration of greatest moment. Unfortunately it is impossible to forecast any case with the clearness of prophetic vision. There are, however, certain factors arresting attention, which, when properly correlated, may help to cast light upon the outcome. A review of these factors is the motive underlying the present contribution. They divide themselves under three general headings: Firstly, the details of the history; secondly, the objective examination, especially the microscopic appearances of the prostatic secretion; and, thirdly, the influence of treatment.

As regards the history, it must be apparent to anyone constantly handling cases of prostatitis that those in which the disease must have been present for some years are usually the most unpromising. It is therefore incumbent to endeavor to ascertain, as far as probabilities will allow, when the gland first became invaded. Usually this will have taken place with the first attack of gonorrhea and will have persisted. If exacerbations have occurred from time to time, it is reasonable to assume that the prostate in whole or in part must have become thereby more or less disorganized and the outlook is accordingly rendered less hopeful. But if such a desperate attitude in regard to long-standing cases is to be assumed, the contrary is true of recent invasions. An early case, other things being equal, certainly offers the most favorable outlook.

This being true, it follows in the interest of the patient's future that the logical course to pursue is to examine for and treat prostatitis at the earliest permissible opportunity. It must be emphatically borne in mind that extension into the prostate takes place in a large percentage of cases of gonorrhea and that this is frequently so insidious that it cannot be suspected from the symptoms.

* Presented at a meeting of the Urological Section of the San Francisco County Medical Society August 31, 1915.

Therefore no case should be dismissed as cured until a proper examination of the prostate has been made. Such a statement would seem almost superfluous, were it not for the general neglect of this most important procedure which requires nothing but a discerning finger and the ability to recognize pus microscopically. The patient usually pays for the omission later with discomforts of various kinds and of varying degree, his prospects for restitution diminished by time.

The second factor mentioned as offering a basis for prognosis concerns the objective examination, especially the microscopic character of the secretion. There are, of course, two methods in common use of ascertaining the condition of the prostate, rectal palpation and microscopic analysis. Now inasmuch as discrepancies are likely to occur, the relative importance of the two is open to discussion. To be sure, when possible, the facts determined by both methods should be so correlated as to permit the formulation of an approximately truthful pathological picture. But it is a question which of the two affords a more accurate and safer standard for comparison. In my own experience I have come to rely more and more upon the microscopic examination, having found that rectal palpation may be misleading. The conformation of the rectal surface of the normal prostate is subject to variations in size as well as of contour. Asymmetry is not uncommon and differences of consistency, such as hard and soft areas, are frequently met with in a single gland, which otherwise shows no evidence of disease. On the other hand glands which are the seat of frank inflammation may prevent a smooth surface, perfect symmetry, regularity of outline, and a uniform, firm, elastic consistency. In other words, as far as evidence elicited by palpation is concerned the prostate is to be considered normal. But the picture presented by the massaged secretion fails to substantiate such a conclusion.

While it is therefore unsafe to rely upon the data of rectal palpation alone, observation of the expressed secretion without an attempt at critical interpretation may be delusive. To the unaided eye a specimen of prostatic secretion obtained by massage, though it contain abundant pathological elements, nevertheless frequently can not be distinguished from the normal, presenting the same grayish, opalescent, homogeneous appearance. The necessity of microscopic examination is therefore obvious. The observer will not alone have the advantage of determining the presence or absence of pus cells or organisms, but will be able to gain a fair estimate of the extent of prostatic involvement. In this he will be guided by noting the proportion of pus cells to the normal elements of the secretion. In some specimens indicating marked involvement the latter may be almost entirely absent; in others indicating less extensive changes the pus cells, though numerous, may be interspersed by a fair proportion of lecithin bodies; again in the mildest cases the appearance may be generally normal with only a moderate number of pus cells.

Generally speaking, the less the gland is involved as disclosed by the microscopic picture the

more favorable the outlook. But certain sources of error must be recognized. Firstly, the distribution of pathological elements may be uneven. The first drop or two expressed may show abundant pus cells and few lecithins, while subsequent drops may show the quantitative proportions reversed. Casual inspection of the mixed secretion so obtained would suggest a moderate, diffuse prostatitis, whereas in truth marked involvement in a small focus may be thus masked and the prognosis is accordingly less hopeful than would appear. Secondly, the density of the lecithin bodies is subject to variation even in a given individual. At one time the secretion may be thin and watery, at another pearly white and almost opaque. If the estimate of degree of involvement of the prostate is then to be based upon the numerical proportion of pus cells to lecithin bodies, this variable becomes a possible source of faulty deduction. Thirdly, this is not the only variable, as the pus cells too may be found to vary in number on successive examinations, though within narrower limits. The recognition of such fluctuating features as the foregoing must have weight in any critical interpretation of the microscopic picture before any conclusion can be based upon the premises.

The third factor determining prognosis depends upon the influence of treatment. Before, however, considering therapy one might well ask what are the chances for spontaneous recovery. To what extent do inherent recuperative powers play a part? Now while it is true that the great majority of untreated cases of prostatitis persist with an aggravating obstinacy, it cannot be denied that occasionally the condition clears up quite independently. Examinations made at infrequent intervals are quite sufficient to establish the truth of this statement. Had these examinations been made more frequently and repeatedly, it might be reasonably alleged that a form of effective therapy, namely prostatic massage, had been employed and that therefore the cases could not properly be considered as untreated. This is, of course, not to be understood. Again, it has been surprising to note occasionally after an extension into the posterior urethra accompanied by severe symptoms that at a period when these symptoms have subsided and conditions are propitious, an examination of the prostatic secretion shows an almost normal composition with but little pus. This apparent paradox is rather difficult to explain. The mechanisms of anti-body formation may suggest themselves at once to those who favor convenient hypotheses.

If, then, cases occasionally get well without treatment, most of them do not. The issue of such cases depends entirely upon how they respond to accepted therapeutic measures. These well-known measures consist of prostatic massage followed by an instillation of silver nitrate, $\frac{1}{2}\%$ to 2% , or the use of other solutions in various ways, and the administration of vaccines, using pure gonococcus, mixed gonococcus, or the sensitized preparations, the so-called sero-bacterins. Both interval and dosage must be regulated to suit the demands of the case. Now it is gratifying to observe undoubted recovery many times, but such recovery is seldom

prompt and, besides, so often does treatment fail to accomplish more than mere improvement that some uncertainty, not to say misgiving, is very apt to develop.

Whether the conditions presenting appear favorable or not upon the premises previously mentioned, the probable duration of treatment can only be approximately surmised. Even then the unexpected so frequently happens that one hesitates to venture an opinion. However, within three or four weeks from the commencement of treatment the views on duration should become clearer, depending upon the manifest results thus far obtained and the possibilities for continued progress. When nodules are felt to soften or vanish from the substance of the gland and the amount of pus in an average microscopic field is seen to diminish and the normal elements to increase in proportion, an early cure may be predicted with reasonable assurance.

But it happens all too often that no change of the conditions takes place, though uniform treatment has extended over a period of six to seven weeks. The assumption is reasonable that continuance of such treatment without modification must remain without effect. It can only serve to prolong indefinitely what it seeks to allay. Under such circumstances routine is fruitless and can scarcely be countenanced. The procedures employed must be modified or additions made with a view to securing improvement, a systematic plan for the purpose being advisable. It may be necessary to massage the prostate at longer, seldom shorter, intervals than three days. Massage may have been too vigorous or too prolonged. Parenthetically it may be stated that an occasional red blood cell may be found in the secretion, though gentleness has been observed. But actual trauma through severe massage must be avoided, for it is only reasonable that a tissue already inflamed can not thus be restored to normal; in fact harm may be done. Perhaps it is not the massage but the instillation which serves to prolong the disease or otherwise obscure the evidence of restitution. The strength of the silver solution employed may have to be modified or it may be necessary to substitute one of the various organic preparations for the nitrate. Occasionally a peculiar idiosyncrasy to silver is seen. The immediate reaction may not be severe but there is evidence that the case is unfavorably influenced and irrigation may be found to be preferable. Here again systematic use of one's resources is called for.

In many cases, either at the beginning or at some time during the course of treatment, recourse to the use of vaccines may be thought necessary. This, of course, is always a tempting subject for discussion, which is too likely to be carried beyond the proper province of this paper, the title of which, it will be recalled, is prognosis, not treatment. That vaccines have added an effective means of aid in the achievement of favorable results is generally admitted. Stock vaccines are usually employed and here again the vital point is the systematic control of the kind, dose and interval, adherence to a definite plan being of first importance. Should the ordinary stock suspension

not avail, the use of the sensitized preparations is certainly worth trial. There are some who favor autogenous vaccines exclusively and doubtlessly upon very justifiable grounds. But the securing of a culture from the prostatic secretion is surrounded by certain difficulties, leading to uncertainty in the identification of the growing organism with pathogenic relations to the prostate. Smears made from the meatus show the gleet discharge associated with chronic prostatitis to be teeming with enormous numbers of organisms of the greatest variety. Hence, contaminations from this source are almost inevitable, whatever method be used for securing a culture.

On the whole there is a justification in the use of vaccines as an adjuvant in the treatment of prostatitis, provided the vaccines be used thoughtfully and in accordance with the established principles of vaccine therapy. They do seem at times to shorten the course of treatment and in some cases appear indispensable to cure. To this extent they favor prognosis. Nor on the other hand can they be truthfully said to hinder the progress of a case except perhaps in isolated instances. Frequently they absolutely fail to offer any evidence of action whether for good or bad. The relation of vaccine therapy to prognosis is consequently shrouded in considerable uncertainty, as at the outset one can not distinguish those cases that will respond from those that will not.

Quite relevant to the subject of therapy, it is sometimes rather surprising to observe the value of personal hygiene in its effect upon the condition in the prostate. Cases that are so intractable as to appear hopeless are occasionally seen to improve or completely recover as the result of a change of climate, a vacation, or a change of occupation. Iron and arsenic may also render some assistance and serve to turn the tide in the patient's favor.

Now up to this point I have attempted to present the subject of prognosis from three angles, namely, history, clinical findings and the influence of treatment, all readily available for those seeking data upon which to base rather tentative conclusions. There are methods untouched upon which, though at present insufficiently exploited to be of value, suggest possibilities for greater clearness in defining the outlook in prostatitis. In fact at some future time they may perhaps enable us to determine with scientific exactness the conditions upon which cure may logically be anticipated. I have reference more particularly to the bacteriology of prostatitis. There are two serious obstacles, however, opposed to bacteriologic study of the living, firstly, the afore-mentioned technical difficulties of securing a true culture, and secondly, the probable failure of growth of the gonococcus, even if, as the principal invading organism, it be successfully transferred to a suitable culture medium. The complement deviation test may serve to circumvent this difficulty, but at the present time it would be rather premature to discuss prognosis upon the basis of bacteriologic or serologic findings.

Time is always an important element of prognosis, one of its fundamental factors. Whether the prostatic condition appear favorable or unfavor-

able, mild or severe, the probable duration of treatment can never be otherwise than approximately foretold. Owing to the necessary vagueness of the response, an embarrassing situation is often created, when one is asked, "How long do you think it will take?" In committing himself to a definite answer the consultant is quite certain to suffer criticism later for promises unfulfilled. A non-committal policy is by all means the best, because it is the only one justified. It is usually more prudent to tell patients that an answer can only be shaped in conformity with the progress of the condition under treatment. Three or four weeks may have to elapse before a definite opinion, if warranted at all, may be ventured, for the duration of treatment is essentially of indefinite length.

It is unfortunate that there is no escape from this vagueness. Thought and experience have rather induced conservatism of opinion and an avoidance of preconceived ideas of a program. One must be prepared to meet besides the unexpected frequent disappointment and many contradictions, exceptions too numerous to sustain any formula. This diffident attitude I have attempted to reflect in the foregoing, and, if there is a lack of clearness, it is because the subject matter itself is not clear. Yet the prognosis of prostatitis is of such importance as to imperatively demand better support. I have tried to show to what extent these demands may be answered.

CONCLUSIONS.

1. It is desirable that prostatitis be cured in every case, but treatment frequently fails or is otherwise unsatisfactory.
2. The outlook is an important matter to the individual as well as from the standpoint of social hygiene and prophylaxis.
3. The probable issue is suggested by the history, the clinical findings and by closely following the effects of treatment.
4. There is really no scientific method of establishing prognosis, though bacteriology may avail here.
5. The duration of treatment is uncertain.

Discussion.

Dr. W. P. Willard: I presume a great many others have something to say on this subject. I think it interests us more, perhaps, than any other of the subjects connected with the genital organs. There are some things in which I do not agree with Dr. Silverberg. One is in regard to the length of time. I do not think that you can, in six or eight weeks' time, determine definitely whether you can cure or have benefited your patient. Sometimes it takes much longer than that. I should put it at least three months, probably four.

Another thing in regard to the question of diagnosis. I do not think we can rely at all on the palpatory findings. I think it is practically of no value at all. You never find two normal prostates exactly alike. One microscopic examination of secretion is not absolutely reliable, as you may not get secretion from an infected portion of the gland.

In regard to the question of the vaccine treatment, what are you dealing with? How many cases of prostatitis are due to chronic gonorrheal infection? Primarily they probably are, but the vast majority, in my opinion, are kept up by secondary infection. I was talking with Dr. Warden,

who has done a great deal of work on the bacteriology of the genital organs. He claims that it is almost impossible to find gonococci in the prostate secretion after the disease has been present for a year. This is an old idea, but he has recently worked it out further. The primary organism was probably gonococcus. But the gonococcus is easily outgrown. We have the urethra, the rectum, and other adjacent organs teeming with other bacteria, and probably the inflammation in the prostate is kept up, in a large number of cases, by other organisms. I think the reason we have not had any results from our vacuum plaque treatment is due to not being able to find out what the infecting organism is. I never yet have found anyone who has had any success at all with the use of bacterins in treating prostatitis. I am glad Dr. Silverberg has been more successful.

Dr. Martin Krotoszyner: The prognosis of prostatitis depends as much upon the intelligence of the patient as upon that of the physician. Unfortunately there exist comparatively few patients with sufficient patience and perseverance to remain with one physician during the long course of treatment, and, that, to my mind, is the main reason why, as Dr. Silverberg mentioned, so many patients run from one physician to another.

Another factor which clouds the outlook of chronic prostatitis is, that it still so frequently is overlooked by the general practitioner and therefore remains untreated. I think it was in 1898, or about that time, that Casper published his very methodical investigations of the pathology of chronic gonorrhea, when he was able to trace between 80% and 90% of these cases to be due to the persistence of a focus in the prostate. That fact has unfortunately not yet penetrated into the rank and file of the general practitioner, and we urologists, therefore, still see quite frequently cases that have been permitted to enter matrimony with chronic and untreated prostatitis.

As regards the diagnosis I place particular stress upon the microscopic examination of the expressed prostatic juice. No other objective symptom, including palpation of the gland per rectum, is diagnostically of such uncontrovertible importance as the presence of microscopic pus, even though gonococci may not be traceable in the specimens.

I agree with Dr. Silverberg in the preponderating importance of methodical massage in the treatment of prostatitis. Long experience with that method of treatment has taught me, though, that in some cases the presence of pus in the prostate, if persistent, while all other symptoms have abated, may be due to traumatism of the gland caused by over-massage. If these patients are permitted to go untreated for a month or two, the microscopic picture will gradually change to the normal.

I have of late studied my material of chronic prostatitis serologically and, while not yet able to formulate conclusions, I nevertheless feel from my observations justified in hoping that the complement fixation test for gonorrhea may prove to be an important guide as regards the prognosis of prostatitis, especially in connection with the question of contemplated matrimony.

Dr. M. Wolff: The fixation test in chronic prostatitis will probably never amount to much as an aid to diagnosis on account of the condition described in the statement of Dr. Warden that the gonococcus is really not present. In doing fixation work, you get less positives in prostatitis than in other post gonorrheic conditions. That would seem to show that the gonococcus itself was not there in its true form, and if that were so the culture method would probably offer better results, because with the new media it is not so difficult to grow the gonococcus and demonstrate its presence if it is there among the other more common bacteria always found in these chronic prostatitis cases.

Dr. Veck: The subject is of such importance

I cannot refrain from making just a few remarks. Of course, palpation of the prostate, as it was said, does not amount to much, if we consider the contours and the shape and such things, but there is one point that always should be noted, and that is the sensitiveness. The gland that is inflamed and is involved in any kind of infection will show a great deal of sensitiveness, while a gland that is not infected will not be so sensitive.

Another point that physicians who have been studying prostatitis for many years have always lost sight of is this: All patients that come with chronic prostatitis are generally of the class who have either been neglecting their sexual life or are unable to lead a natural sexual life. If you investigate all your prostatic patients, you will seldom find a case that offers any difficulty in curing in a person who leads an active and vigorous sexual life. No massaging will amount to the therapeutic influence of regular and vigorous sexual intercourse. Just consider that point and study your patients in that respect, and you will find it is always the man sexually weak, who does not lead an active sexual life, that comes to you with all imaginable prostatic troubles, so tedious to influence therapeutically.

Of late I am not so much afraid of chronic prostatic cases, and that is since I use fuchsin. Whenever I massage a prostatic gland and express everything that is in that gland, just gently, but thoroughly, without hurting the patient very much, getting out of the gland all the accumulation, then, immediately after the patient has urinated, I take a hand syringe filled with a one-fourth to a one per cent. fuchsin solution, and press that into the patient's bladder. There is no doubt that part of that solution penetrates into the prostatic gland. I have had cases in which, when I massaged the gland the day after for my own satisfaction, I could get a fuchsin stained secretion from the prostatic gland. It seems to me that after the prostate is really emptied, it acts as a sponge would. By pressing the stem of the Jannet syringe against the meatus, using discretion again not to hurt the patient, something of the solution reaches through the ducts into the prostatic gland. My cases of prostatitis clear up most wonderfully after the fuchsin treatment. All germs are fuchsinophil and stained by fuchsin. A germ once stained is certainly a good germ. It never hurts that patient any more.

Dr. William E. Stevens: I think we are inclined to be prejudiced in our opinion regarding the prognosis of chronic prostatitis. Although we do not like to admit this it is nevertheless a fact that we have been unable to cure a certain percentage of these cases. They may be given the benefit of the generally accepted therapeutic measures such as regular and prolonged massage, irrigations, instillations, et cetera, and yet a larger or smaller number of pus cells are found on microscopical examination of the prostatic fluid. We discontinue treatment for a time or the patient discharges himself and if the amount of pus has been small and he does not return we flatter ourselves that the case has been cured. Often the symptoms have again appeared but the patient has decided to try another physician.

Recently I have been using an autogenous sero-vaccine suggested to me by a San Francisco urologist who will shortly publish the technic of preparation and administration together with a large series of cases showing very favorable results. I have been very much impressed by the few cases I have treated so far. One patient had been under the care of competent urologists for two or three years without benefit, the prostatic fluid being loaded with pus cells. This cleared up completely after two intravenous injections of the above vaccine. Whether or not this result can be obtained in a large majority of cases I do not know but I firmly believe that in some types of chronic pros-

tititis hope of cure depends upon an improved vaccine or serum therapy rather than the present method of treatment.

Dr. Silverberg (closing): As much of the discussion has been in the elaboration of my paper, there is very little to say, except to remind Dr. Willard that I said "three or four weeks' time may have to elapse before a definite opinion, if warranted at all, may be ventured."

In regard to the vaccines, I am not so sanguine. I attempted in a way to present the general view rather than my personal experience.

CRIMINAL ABORTIONS AND THE MEDICAL PROFESSION.*

By CHAS. D. BALL, M. D., Santa Ana.

"What would you consider your duty when called to a case of curettage and found it to be criminal abortion?"

This question was asked the candidates for the R. N. certificate by the State Board of Health in the recent October examinations. How would the individual members of this society answer that question? Unless their answers belied their actions many would reply: "I would give the woman the full benefit of my skill and there my responsibility would end." I wonder if any of the nurses made such a reply and how such a reply would be received.

To-day criminal abortion is the most vital problem that confronts our republic; in fact, it beggars all others combined. De Lee in the Practical Medicine Series, 1912, Vol. 5, quotes Jackson as saying that there are annually in the state of Maine fifty thousand criminal abortions. If this be true and Maine is a fair average there are, at least, five million criminal abortions in this country every year. So startling are these figures that few outside of the medical profession will believe that they can possibly be correct. It is well to remember that a woman addicted to the abortion habit may have four abortions where she would have one labor at term. One case has been reported of a woman who miscarried thirty-six times. Germany lost in killed, wounded and missing two and a half million men in the first eighteen months of the present war—the bloodiest war of all ages. Probably less than a million of the Germans were killed outright. During that period seven and a half million of our infants were destroyed. The world is stunned at Germany's terrible loss, but takes not the least notice of America's heart-breaking tragedy. Germany's misfortune will stagger her for a short time, but America's, if continued, means annihilation.

The meager returns of the census of 1910 show that about two million viable babes are born annually. This means that for every living child born there are two and a half abortions.

Abortions are steadily increasing. Busy practitioners are constantly besieged by those soliciting abortion work. The hospitals are filled with this class of patients. Were it not for immigration and the children born of foreign parents our population would be rapidly decreasing.

* Read before the Southern California Medical Association, December, 1915.

To what extent is the medical profession responsible for this unfortunate condition? Our burden is heavy. We are not to blame for the low moral standard of a woman who would destroy her unborn infant, but we are to blame when we abet her in this crime. A woman solicits an abortion of her family physician; he denies her request, but a week later, she having fever or hemorrhage, he cures her without asking a question. Is he not morally and legally accessory to the crime?

Criminal abortions are not all procured by the women themselves, nor by the professional abortionist who does the job for ten dollars. There are more medical society men doing the work than would care to have their names published. These men are really worse than the ten dollar men; more sneaking, more contemptible and harder to reach. They do not work for strangers nor the poor, nor where there is danger of detection. They are quietly gleaning from their more honorable confreres their good pay patients and all the time are blaming the ten dollar men for their own misdeeds.

While the diagnosis is painfully easy the prognosis is exceedingly grave—all but hopeless. Woman is trying to justify herself for the crime; it is no one's business but her own; she cannot afford to have children; by limiting the number of the human family she is really improving its quality; for sacrificing her unfit offspring she should be decorated with a martyr's crown. Moreover, abortion is an unchaste subject to be debarred from good society and ignored by the press—lay and religious.

With more than 10 per cent. of our population actually abortion criminals, and with a very much larger percentage sympathizing with this criminal class, it will require every resource of the nation to successfully combat this evil. Nothing but a national movement may hope for success.

Although it is impossible for the medical profession to deal with this problem alone, it must take charge of it. As in numerous other instances we must protect the people from themselves. It is our duty to do so.

The moral standard of the nation must be raised. Here we must be assisted by the clergy, and I feel that we may depend upon every priest and preacher in the land. They are clean, and abhor crime. No matter how much they may shrink from the task, duty will align them with us.

Our patriots must arouse the patriotism of the women. While millions of the European soldiers are cheerfully giving up their lives for their countries, millions of American women are cheerfully murdering their own offspring from every motive but a patriotic one. Yet there is a class almost driven by poverty to infanticide that should be protected by the nation. Many a mother's eyes fill with tears when she discovers that she is pregnant. Not that she considers herself in the least, but because there is so little for the children already born—little to eat, little to wear and little prospect of equipping them for

the hard struggle of life. God help such a woman, her burden is indeed heavy. Why do not the patriots come to her relief? We have spent billions in pensions for our patriotic soldiers and we are driving these patient, faithful mothers to starvation or crime. Why do not our lawmakers save her and her children when they are so badly needed? She is as much a patriot, and as much entitled to our assistance as any man that fought at Gettysburg or El Caney.

Of course, our chief dependence must be upon the laws of our land, but unfortunately, in this state at least, justice is so fettered by the endless technicalities that the legal fraternity itself is ashamed of her forlorn plight. Our laws are all right if they can be enforced.

There is a deeply rooted feeling in the medical profession that all professional secrets are inviolable, but such is not the case. The law reads:

"Sec. 1881. C. C. P. A licensed physician or surgeon cannot, without the consent of his patient, be examined in a civil action as to any information acquired in attending the patient, which was necessary to enable him to prescribe or act for the patient."

Only in civil cases does this law hold. There are no exemptions for a physician's testimony in a criminal case.

Various sections of penal code of California read as follows:

"Sec. 27. The following persons are liable to punishment under the laws of this state:

"All persons who commit, in whole or in part, any crime within this state."

"Sec. 31. All persons concerned in the commission of a crime, whether it be felony or misdemeanor, and whether they directly commit the act constituting the offense, or aid and abet in its commission, or, not being present, have advised and encouraged its commission, are principals in any crime so committed.

"Sec. 32. Accessories: All persons who, after full knowledge that a felony has been committed, conceal it from the magistrate, or harbor and protect the person charged with, or convicted thereof, are accessories.

"Sec. 33. Punishment or accessories: Except in cases where a different punishment is prescribed, an accessory is punishable by imprisonment in the state prison not exceeding five years, or in a county jail not exceeding two years, or by fine not exceeding five thousand dollars."

"Sec. 274. Penalty for abortion: Every person who provides, supplies or administers to any pregnant woman, or procures any such woman to take any medicine, drug or substance, or uses, or employs any instrument or any other means whatever with intent thereby to procure the miscarriage of such woman, unless the same is necessary to preserve her life, is punishable by imprisonment in the state prison not less than two, or more than five years.

"Sec. 275. Submission to abortion: Every woman who solicits of any person, any medicine, drug or substance whatever, and takes the same,

or who submits to any operation, or to the use of any means whatever with intent thereby to procure a miscarriage, unless the same is necessary to preserve her life, is punishable by imprisonment in the state prison, not less than one, nor more than five years."

"Sec. 317. Every person who wilfully writes, composes or publishes any notice or advertisement of any medicine or means for producing or facilitating a miscarriage or abortion, or for the prevention of conception; or who offers his services by any notice, advertisement or otherwise to assist in the accomplishment of any such purpose, is guilty of a felony."

Sec. 275 could be easily enforced but I have never heard of any woman in this state being convicted for soliciting abortion, using drugs or instruments for that purpose, or submitting to an operation with that end in view. The chivalric ages through which man has passed have developed in him a sense that he must never strike a woman, nor betray her confidence. It is only when the woman is dying that he feels it his duty to expose her crime.

Sec. 32 very clearly shows how the nurse should have answered the question propounded by the State Board of Health. Every nurse, every practicing physician and every hospital authority in the state who knows of any criminal abortion and does not report it to the proper authorities is accessory to crime and liable to a term in the penitentiary.

Sec. 317, preventing conception, has been fairly well enforced, but only to increase the abortionist's work. In this state a man may be hanged on circumstantial evidence alone, but conviction for abortion on such evidence is almost impossible. The laws should be so amended that a murderer of an unborn infant should fare no better than any other murderer.

In California, all births of babes, viable and still born, must be reported within a few hours to the authorities. In the same manner abortions should be made a matter of record. They should be reported by the physician, midwife or nurse in charge. The report should show, in addition to the information given in the usual certificate, the cause of the abortion, whether criminal or not, and the name of the consultant. This information would be of great value in ferreting out crime. Of more value would be a federal law compelling physicians and hospitals to record all curettements. The investigation of every curettement by federal inspectors should be made possible. A law like the Harrison Anti-Narcotic Act with equal or more scope would paralyze the abortionists.

In this work the medical profession must be represented by the societies, for in them is the nucleus of organization. The ten dollar abortionists are not usually medical society men, but there are for all that too many malefactors harbored by the societies. These men should be identified and forced to be decent or summarily expelled. The fear of expulsion and unsavory no-

toriety will greatly aid in the reformation of many. Medical societies should not be trammelled by technicalities.

To summarize:

The moral standard of many women must be raised.

The medical profession must clean house.

The nation must make it possible for the poor to bear children and it must educate the children of the poor.

Federal anti-abortion laws must be enacted.

For the legal information contained in this paper I am indebted to the Hon. L. A. West, district attorney of Orange County.

THE RESULTS OF THIRTY-FIVE TRANSFUSIONS.*

By SAXTON T. POPE, M. D., San Francisco.

This report of thirty-five transfusions probably adds little to our knowledge, but may help to emphasize what others have proved, and besides our personal experiences always carry the most weight. In the comprehensive report recently made by Ottenberg and Libman of 212 transfusions the subject has been very exhaustively treated and what conclusions we draw seem to correlate with theirs.

The various methods of direct transfusion, those of Crile, Elsberg, Carrel, Brewer, Bernheim; and those of indirect transfusion, Curtis and David, Kimpton and Brown, Lindeman, Unger and Lewisohn, all have their advocates and we have employed them all experimentally or in teaching.

But the majority of the transfusions here recorded were done by the cannula method, using two glass tips connected by a flexible rubber tube. This simple device, paraffined throughout, has served its purpose well. There never has been any clotting in the tube and the flexibility is a definite advantage in adjusting the cannula in the artery and vein. We have found it unnecessary to dissect out the blood vessels; simply expose, ligate and incise diagonally. The glass tips are thus easily inserted and secured, all of which expedites the work.

When thrombosis does occur in a cannula it does so where the intima of the vessel is traumatized by rough technic or too large a cannula. In five of the reported cases the syringe method of Lindeman was used. We found this entirely satisfactory for small quantities of blood and do not question its efficiency in large transfusions. It is purely a matter of habit that one form is used in preference to another. Lindeman's report of 137 transfusions, in some instances amounting to 2000 c.c. of blood, more than vindicates his method.

While at Crile's clinic, in the European war surgery, and throughout the world, some modification of the Brewer tube is being used for most of the transfusions, Brewer himself has said recently that, in the face of Lindeman's simple method, he feels ashamed of the fact that he ever invented his tube.

In none of our transfusions were preliminary

* Read before the Alumni Society of the U. C. Medical School, November 1915.

Service	No.	Diagnosis	Result
Med.	5852	Duodenal ulcer, perforation, hemorrhage	Relieved, hemorrhage checked temporarily
Surg.	5852	Perforating duodenal ulcer, peritonitis	Relieved, laparotomy, peritonitis, death
Med.	8778	Hemorrhage, anemia	Relieved
Surg.	7824	Gunshot wound, hemorrhage, shock	Relieved
Surg.	7824	Secondary hemorrhage, septic	Relieved, re-amputation
Surg.	6182	Hemorrhoids, anemia, phlebitis	Relieved
Private	Mr. M.	Cirrhosis, gastric hemorrhage	Stopped bleeding, died of uremia week later
W. C.	6357	Post-operative uterine hemorrhage, shock	Relieved
St. Luke's	Mr. B.	Post-operative hemorrhage, prostatectomy, profound shock	Relieved
Surg.	?	Pyelonephrosis, nephrectomy, sepsis	Dead
Surg.	6444	Pyonephrosis, sepsis	Dead
Surg.	7956	Acute miliary tuberculosis, laparotomy, shock	Dead
Surg.	8412	Sinus thrombosis, septicemia	Relieved
Private	Miss T. L.	Fecal fistula, septicemia	Dead
Surg.	6687	Cerebrospinal syphilis, Charcot joint, resection, shock	Dead
Med.	7481	Typhoid hemorrhage	Relieved, stopped hemorrhage
C. & C.	Mr. C.	Typhoid hemorrhage, collapse	Relieved, stopped hemorrhage
Private	M. S. Miss W.	Typhoid, hemorrhage	Relieved, stopped bleeding
Private	Miss W.	Typhoid, profound septicemia	Dead
Surg.	6485	Gastric carcinoma, inanition	Relieved, exploratory laparotomy
Surg.	6746	Fecal fistula, carcinoma colon, anemia	Laparotomy, relief of shock
Med.	7143	Gastric ulcer, inanition	Relieved of shock, duodenal tube, laparotomy
Surg.	7143	Carcinoma stomach	Relieved, laparotomy, ulcer healed, tube removed
Private	Mr. H.	Sarcoma of axilla	Dead, tumor reduced in size
Private	Mrs. G.	Sarcoma of ovary	Dead
C. M.	6305	Hemophilia, profound anemia	Relieved
C. M.	6305	Hemophilia, bleeding from nose	Relieved, stopped bleeding
C. M.	6305	Hemophilia	Relieved, hypertransfused hematuria
C. M.	6515	V. Yakes, pseudoleukemia	Relieved
C. M.	6515	V. Yakes, pseudoleukemia	Relieved
Private	M. J.	Purpura hemorrhagic	Unimproved
Private	S. T.	Purpura	Relieved
Private	Miss S.	Giant urticaria	Relieved
Private	Miss S.	Urticaria	Relieved
Private	C. A.	Urticaria	Relieved

tests made for agglutination or hemolysis. Wassermann tests were made whenever haste did not demand immediate action. Here, of course, a clinical examination had to suffice. It is undoubtedly advisable to have a series of prospective donors on whom blood studies have been carefully made. In one instance a slight hemolysis occurred, but did no damage. In another instance the donor had a streptococcus angina which was not discovered until later. The recipient had an immediate chill followed by quite a fever for a few hours. One case of hypertransfusion occurred in a child and signs of cardiac embarrassment with subsequent hematuria developed; no harm resulted.

A summary of these cases roughly establishes the following conclusions:

1. In sarcoma. Although in one case the tumor underwent a rapid reduction in size, the patient died of metastases. Transfusion failed to relieve.
2. In sepsis, without hemorrhage. No improvement resulted.
3. Inanition, transfusion prior to operation is of great benefit.
4. Hemophilia is relieved temporarily.
5. Von Yacks' pseudoleukemia was relieved of the anemia and apparently hastened the recovery.
6. In purpura, though transfusion has been of signal success in many reported instances, in one case it failed to improve.

7. In urticaria it gave immediate and lasting relief.

8. In the hemorrhage of typhoid it was of great value, resuscitating three apparently dying patients and stopping the bleeding abruptly.

9. In hemorrhage and shock it acts as nothing else can and undoubtedly saved the lives of five of the nine persons transfused.

Berard and Lumière report miraculous recoveries of soldiers practically moribund from hemorrhage. They employ women for donors. While this is undoubtedly desirable where able-bodied men are at a premium, we have found that women make poor donors as a rule. In the two instances where an insufficient flow of blood came from the radial artery the donors were women. They seem to be more susceptible to adrenalin than men. It has been part of the technic of nearly all surgeons to use this drug in the local anesthesia and with no apparent detriment. But where sympatheticotonia exists an abnormal reaction may lessen the calibre of the radial artery.

The amount of blood flowing through the cannula at the end of a good transfusion usually is at the rate of half an ounce in ten seconds or three ounces a minute.

The Simons, Irving report of two untoward

results in the use of sodium citrate mixed with blood rather dampens one's ardor for the employment of this indirect method. Nor does the use of hirudin as an anticoagulant appeal to one.

Abel has advocated a method termed plasmaphoresis, wherein washed blood cells mixed with salt solution are substituted for blood. The essential element of blood is supposed thus to be furnished. Experimentally I have tried this method but the difficulties of washing the large quantity of blood needed are considerable. For 1000 c.c. of blood it is necessary to centrifuge 20,000 c.c. or 10 gallons of solution. This and an indefinite dislike for cold storage blood rather prejudices me against it.

As a feature of technic we have found that citrate and salt solution used freely on the exposed blood vessels during the entire operation is much more efficient in maintaining the anti-thrombin-prothrombin balance than a protective coating of petrolatum. The subject of untoward results of transfusion has been thoroughly detailed by Van Beuren and in our work we have not met them. In one case in which we previously had done a transfusion the patient died suddenly while being transfused at another hospital. The cause of death was not ascertained but the clinical history rather suggests acute cardiac dilatation.

The lesson to be drawn from this series is that transfusion here saved the lives of at least one-fourth of these patients. In typhoid fever with hemorrhage this should be a routine measure, using the medical or indirect method and, if possible, having a donor with acquired immunity. In purpura and severe urticaria it is almost specific. In hemorrhage and preliminary to major surgical operations upon the debilitated it is a life saving procedure.

Transfusion by the indirect method should be at the command of every practitioner of medicine. But surgeons doubtless for some time will still favor the more satisfactory types of direct transfusion.

References.

- Ottenberg, R., and Libman, E.: Blood Transfusion: Indications, Results, General Management. *Am. Jour. Med. Sc.*, 1915, cl. 36.
- Brewer, G. E., and Leggett, N. B.: Direct Blood Transfusion by Means of Paraffin-Coated Glass Tubes. *Surg., Gynec. and Obst.*, 1909, ix, 293.
- Klimpton, A. R., and Brown, J. H.: A New and Simple Method of Transfusion. *Jour. A. M. A.*, July 12, 1913, 117.
- Lindeman, Edward: Simple Syringe Transfusion with Special Cannulas. *Am. Jour. Dis. Child.*, July, 1913, 28.
- Blood Transfusion: Report of 135 Transfusions by the Syringe Cannula System. *Jour. A. M. A.*, March 28, 1914, 993.
- Blood Transfusion by the Syringe Cannula System. Oct. 31, 1914, 1542.
- Unger, L. J.: A New Method of Syringe Transfusion. *Jour. A. M. A.*, Feb. 13, 1915, 582.
- Satterlee, H. S., and Hooker, R. S.: The Use of Hirudin in the Transfusion of Blood. *Jour. A. M. A.*, June 6, 1914, 1781.
- Lewisohn, R.: Blood Transfusion by Citrate Method. *Surg., Gynec. and Obst.*, 1915, xxi, 37.
- Simons, Irving: Experiences with the Sodium Citrate Method of Indirect Transfusion of Blood (Lewisohn). *Jour. A. M. A.*, this issue (?), 1339.
- Berard, L., and Lumiere, A.: Technique of Transfusion of Blood. *Presse Medicale*, Paris, Sept. 2, 1915.
- Van Beuren, F. T., Jr.: Johnson's Operative Therapeutics, pages 318-19.

THE PHYSICIAN AND THE ADOPTION LAW IN THE STATE OF CALIFORNIA.

By STUART A. QUEEN,

Secretary Board of Charities and Corrections of the State of California.

Nearly every physician has had at one time or another a maternity case where the mother for some reason felt that she could not retain her child. Sometimes the woman has been deserted by her husband. In other cases he is unable to work. Again she may not be married at all. In any case she must go out to work and cannot care for the baby, or earns too little to pay her baby's board and her own. In such a case what is more natural than for her to ask the physician to respond to her appeal. Somewhere in his practice he has found people who want to adopt a young child. He puts them in touch with the unfortunate mother. They secure custody of the baby either by formal relinquishment or by waiting for a year to elapse.

No law has been broken, unless the doctor has actually taken the child from its mother to the foster parents or has himself arranged for the removal.¹ Yet the very purpose of one of the laws affecting young children is entirely defeated. The State has made itself responsible (Chap. 569, Stats. 1911 and Chap. 69, Stats. 1913)² for all children for whom foster homes must be found. The purpose of these laws is two-fold: first, to prevent the giving up of children by their natural parents wherever possible in order that added burdens may not be thrust upon the community either directly or indirectly; and second, to make sure that foster homes in which dependent children are placed are of such character as to insure proper care and training for these unfortunates.

Machinery is provided under the law for supervision of the work of finding homes. Child-placing is definitely restricted to such agencies as are licensed by the State Board of Charities and Corrections. These licenses are granted only to societies which can demonstrate their ability not only to find suitable homes but to keep track of the children placed for adoption until there is no question or doubt that each child and its new home are mutually adapted. It is customary for an agent of a home-finding society to investigate carefully each applicant. If the home is satisfactory—morally, financially, physically—a child will be placed conditionally for six months or a year. During this time the agent visits the foster home to see whether the arrangement is best for all concerned. If all is well, the society gives its consent and the adoption is consummated.

There are nine organizations so licensed. They are:

- (1) Associated Charities of Oakland.
- (2) Catholic Humane Bureau, San Francisco.
- (3) Catholic Ladies' Aid Society of Alameda County, Oakland.
- (4) Children's Agency of the Associated Charities of San Francisco.
- (5) Charity Organization Society, Berkeley.
- (6) Children's Home Society of California, Los Angeles.

- (7) Eureka Benevolent Society, San Francisco.
- (8) Los Angeles Humane Society for Children.
- (9) Native Sons' and Native Daughters' Central Committee on Homeless Children, San Francisco.

The work of these organizations is investigated and supervised by the State Board of Charities and Corrections. Thus there is provided a means for seeing that proper care is given every child whose natural home fails. But actually many children are placed in foster homes without record or investigation—largely because physicians and nurses are unacquainted with the machinery which has been described.

Some, however, fear that the regularly constituted means of handling these cases will bring undesirable publicity or notoriety upon the foster parents, the mother, or the child. This may indeed, happen, but almost always it can be, and is, avoided. Frequently it is desirable to conceal the facts from neighbors and others, and this can usually be done without interfering with investigation and supervision. Always it is the welfare of the child that is uppermost in our minds and this can be best safeguarded by handling these matters through the regularly established channels.

That there is justification for so great care is evident from known cases of improper placement and even complete disappearance of children. One well-known hospital in Alameda County permitted a child to be removed by a total stranger without even recording the address to which it was taken. Home-finding involves more than the initial act. It involves responsibility for seeing that the home is a suitable place for a child, that the foster parents are able and willing to give the child the care it needs and finally that they do give the child proper care and training. This requires an expenditure of time which the average physician is not able to give. Surely he will welcome a plan which relieves him of this great responsibility and at the same time assures the prompt and proper handling of these unfortunate children.

¹ Sec. 4, Chap. 569, Stats. 1911. It is hereby made a misdemeanor for any person or persons, either as individuals or officers of any association or society, to engage in the work of placing children into homes, or the soliciting of funds therefor, in this state without a permit duly executed in writing by the state board of charities and corrections, authorizing said persons or such association or society to engage therein, or to engage in such work after any permit has been canceled.

² Sec. 1, Chap. 69, Stats. 1913. No person, association, or corporation shall hereafter maintain or conduct in this state any maternity hospital or lying-in asylum where females may be received, cared for or treated during pregnancy, or during or after delivery; or any institution, boarding house, home or other place conducted as a place for the reception and care of children, without first obtaining a license or permit therefor, in writing, from the state board of charities and corrections, such permit or license once issued to continue until revoked for cause after a hearing.

PROGRAM

THE COMMITTEE ANNOUNCES A VERY FULL PROGRAM AND NO MORE PAPERS CAN BE ACCEPTED. THE ADVANCE PROGRAM WILL BE PUBLISHED IN THE MARCH JOURNAL. LOOK FOR IT.

BOOK REVIEWS

The Operations of Surgery. (Jacobson.) Sixth edition. By R. P. Rowlands and Philip Turner. Vols. 1 and 2. Published by The Macmillan Company, New York. 1915.

This is the sixth edition of a very good operative surgery. Besides giving the usual features found in works on surgery it is replete with many matters of unusual and particular interest. Its chapters on lung surgery and wounds of the heart are particularly good. Every phase of modern surgery is dealt with in a comprehensive way; nothing seems to be too small nor overlooked; the major subjects are dealt with in a classical manner. It can be recommended as a *vade mecum*.

S. T. P.

American Illustrated Medical Dictionary (Dorland).

New (8th) Edition Revised and Enlarged. A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with new and elaborate tables. Eighth Revised Edition. Edited by W. A. Newman Dorland, M.D. Large octavo of 1135 pages, with 331 illustrations, 119 in colors. Containing over 1,500 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1915. Flexible leather, \$4.50 net; thumb index, \$5.00 net.

We have commented most favorably upon previous editions of this invaluable dictionary; the present edition is, of course, enlarged and improved. It seems almost superfluous to say that a copy ought to be in the library of every physician—especially those who write papers for publication!

Diseases of the Skin and the Eruptive Fevers.

By Jay Frank Schamberg, M. D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Third edition, revised. Octavo of 585 pages, 248 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$3.00 net.

The author has improved his book in this edition by the revision of some of the chapters on syphilis in accordance with the very latest accepted ideas, and also by the addition of some excellent photographs, and considerable amplification of the sections devoted to the exanthemata.

The full discussion of the acute eruptive fevers with the accompanying very good illustrations is a most valuable feature.

H. E. A.

SAUNDERS' CATALOG.

W. B. Saunders Company, publishers of Philadelphia and London, have just issued their 1916 eighty-four-page illustrated catalogue. It is a descriptive catalogue telling you just what you will find in their books and showing you by specimen cuts, the type of illustrations used. It is really an index to modern medical literature, describing some 300 titles, including 45 new books and new editions not in former issues. A postal sent to W. B. Saunders Company, Philadelphia, will bring you a copy.

The Clinics of John H. Murphy, M.D., at Mercy Hospital, Chicago. December 1915. Vol. IV, No. 6. Published bi-monthly by W. B. Saunders Company, Philadelphia and London.

Contents.

Leukoplakic papilloma of buccal mucosa.
 Recurrent leukoplakic papilloma of buccal mucosa.
 Papilloma of lip and cheek.
 Congenital nasal deformity.
 Carcinoma of maxillary antrum.
 Congenital (thyroglossal duct) sinus of neck.
 Bilateral cervical ribs.
 Osteosarcoma of scapula.
 Osteosarcoma of humerus, recurrent.
 Cicatricial fixation of ulnar nerve in its groove sequential to ancient fracture of olecranon process.
 Hyperflexion fracture of radius and ulna, lower third.
 Extensor contracture of hands following burns.
 Osteitis fibrosa cystica of phalanx of finger.
 Multiple angiomas.
 Biliary calculus impacted at ampulla of Vater.
 Andeocarcinoma of neck of uterus.
 Undescended testicle.
 Congenital luxation of both hips.
 Congenital luxation of hip.
 Old fracture-luxation of right hip-joint.
 Coxa vara (bilateral) due to status lymphaticus hyperthymicus.
 Recent comminuted T-fracture in lower third of femur.
 Recent fracture in lower third of femur.
 Right knee: Luxation with fraying of internal semilunar cartilage and osteophyte.
 Left knee: Hypertrophic osteoarthritis.
 Fracture of internal semilunar cartilage.
 Foreign bodies in knee-joint.
 Sarcoma of popliteal space.

Syphilis a Modern Problem. William Allen Pusey, M. D. Pub. by American Medical Assn., Chicago, 1915.

In this little volume the author has been remarkably fortunate in presenting in a concise form the main facts of syphilis in its relation to society.

In the first chapters he deals with the history of the disease, both as to its origin and cause. America is shown to have been the undoubted source from which the malady was introduced into Europe. The growth of the knowledge of the then unknown disease is outlined and the stormy controversies that were waged as to its nature are sketched in statements that are illuminating. Many facts are mentioned that will be sought in vain in more pretentious volumes.

In the chapters following those on history the cause of the disease is discussed and the pathology and prognosis are touched upon. In these chapters the medical reader will meet with surprises, for since the book is ostensibly written for the educated layman it would be natural to suppose that the portion dealing with ordinary clinical facts would be trite and uninteresting to the medical man, but after reading it one must confess that the well known has been so happily stated and so interestingly blended with that which is new that even those already quite familiar with the subject will read and probably reread these chapters with much interest.

Hereditary syphilis and syphilis and marriage are each discussed in a most helpful manner.

In the chapter on prophylaxis the author advocates extensive state care of the secondary syphilis and others in a decided infectious condition. Ample and well regulated facilities should be afforded the public for antisyphilitic treatment. As to personal prophylaxis he unhesitatingly endorses the plan of providing bactericidal ointments for those who are in line for infection.

Taken by and large it may be stated that the reviewer is not acquainted with any book on the subject of syphilis in its relation to the public that can compare with this one in interest and sanity. The author is to be congratulated in having said so much in so few words. The style is positive but not dogmatic, convincing but not argumentative. After perusing the volume one is convinced that he has been in the company of a man who has something to say and who has said it well.

R. L. R.

SOCIETY REPORTS**ALAMEDA COUNTY.**

The regular monthly meeting of the Alameda County Medical Association was held at the Hotel Oakland, Tuesday evening, November 16, 1915.

In the absence of the president, the meeting was called to order by the vice-president, Dr. Hadden, and the minutes of the previous meeting read and approved.

The following program was presented:

I. Case Reports.

1. Duodenal Ulcer.
2. Cases of Chronic Disease resulting from Obscure Local Infection.
3. Tuberculous Hip-Joint Disease. Dr. R. T. Stratton.

II. Case Reports.

1. Two Cases of Injury of the Thumb. Dr. Henning Koford.

III. Fracture Records; a National Effort Toward Standardization. Dr. T. W. Huntington, San Francisco.**IV. Why Corrective Lenses often fail to give Relief in Headaches due to Eye-strain.** Dr. Roderick O'Connor.

Dr. Powell made a motion, seconded by Dr. Thomas that the Fracture Form of the American Surgical Association as presented by Dr. Huntington be given official recognition by this society and used by its members. Carried.

The secretary read a set of resolutions in regard to the death of Dr. Myra Knox which were adopted as read and ordered placed on the minutes. There being no further business the meeting adjourned.

ELMER E. BRINCKERHOFF, Secretary.

CALIFORNIA PEDIATRIC SOCIETY—NORTHERN BRANCH.

The next meeting of the California Pediatric Society (Northern Branch), will be held Thursday evening, February 24, at 8 o'clock, in the County Medical rooms in the Butler Building. The subject of discussion will be reports from the several children's and nose and throat clinics in the city on the results of tonsillectomy. Anyone interested in the subject is welcome. The following reports will be discussed:

Symposium on Tonsillectomy in Relation to Pediatrics.

Report of the clinics of the University of California: Dr. William Palmer Lucas, Dr. Albert J. Houston.

Report of the San Francisco Polyclinic: Dr. Henry Horn, Dr. H. P. Roberts.

Report of Children's Hospital: Dr. Florence M. Holsclaw, Dr. Anna Flynn.

Report of clinics of Stanford University: Dr. Edward N. Sewall, Dr. George D. Lyman.

STATE SOCIETY MEETING—FRESNO.

Minutes of meeting of General Committee (of the Fresno County Medical Society) in charge of arrangements and entertainment of the State Medical Society at Fresno, April 1916.

Committee: Drs. George H. Aiken, D. H. Trowbridge, J. R. Walker, T. M. Hayden, Kenneth J. Staniford, L. R. Willson, Harry J. Craycroft.

Minutes of meeting held December 21, 1915:

The meeting was called to order at 7:45 p. m. in the offices of Dr. George H. Aiken, with Dr. Aiken presiding.

Present: Drs. Aiken, Walker, Hayden, Willson and Staniford.

There was first an informal discussion of the work to be performed by the committee, which resulted in suggestions from the various members as to the best method of procedure for carrying on the vast amount of detail work which is before the committee of the County Society.

Upon the suggestion of Dr. Aiken, it was moved, seconded and carried that three sub-committees be created with such duties as are implied by their respective titles and together with such other duties as the chairman may deem necessary or advisable to assign to them from time to time. The following sub-committees were accordingly created.

1. Committee on Ways and Means.
2. Committee on Entertainment.
3. Committee on Printing and Communications.

Each of these sub-committees to report at every meeting of the general committee, and the general committee, in turn, to report all transactions and progress at each regular meeting of the County Society.

The chair then appointed the following members of the sub-committee:

1. Committee on Ways and Means—Dr. T. M. Hayden, Dr. J. R. Walker.
2. Committee on Entertainment—Dr. D. H. Trowbridge, Dr. H. J. Craycroft, Dr. George H. Aiken.

Committee on Printing and Communications—Dr. Kenneth Staniford, Dr. L. R. Willson.

It was moved and seconded and carried that Dr. Staniford be made secretary of the general committee to act throughout the period of its existence and to have charge of all communications relative to the work of the committee.

It was suggested that the secretary forward a communication to Dr. Jones, Secretary of the State Society, after each committee meeting, telling of the progress so far made.

Dr. Walker suggested that inquiries be made regarding the advisability and the possibility of giving a lecture open to the public on some important, common interest topic. This lecture should be given by some physician whose name is rather well known to the public, in a public meeting place such as the Municipal Auditorium. The suggestion was carried still further, as it might be possible to give a series of popular lectures, one on each evening during the time of the State Meeting.

Each of the committee members was enthusiastic over the prospects of a largely attended meeting in April and each signified his intention to do his share toward making the visit to Fresno one to be remembered. With the conditions of weather which will probably be prevailing and the highways, we may almost assuredly expect many automobile parties of those who otherwise would either not come at all or would come by train and leave after one day.

It was pointed out also that there is the opportunity not only to make the State Society meeting itself, a success, but to do something for Fresno as well.

After outlining some of the work of the various

sub-committees and after deciding to hold the next meeting of the general committee early in January at the call of the chairman, the meeting adjourned.

KENNETH J. STANIFORD,
Secretary General Committee,
Fresno Co. Med. Soc., 1915-16.

SAN JOAQUIN COUNTY.

The annual business meeting of the San Joaquin County Medical Society was held Friday evening, December 31. The members chosen to serve as the board of directors for 1916 were: Drs. R. T. McGurk, F. P. Clark, C. R. Harry, H. J. Bolinger, G. W. Walker, L. Dozier, L. R. Johnson, J. D. Dameron and Dewey R. Powell. From these Dr. Fred Clark was elected president and Dr. Dewey Powell secretary. Dr. Charles R. Harry was elected delegate to the State Society, with Dr. Dewey R. Powell as alternate. The secretary's report for the year showed a membership of sixty-six members in good standing.

DEWEY R. POWELL, Secretary.

SANTA BARBARA COUNTY.

Report of meeting, December 13, 1915.

The Santa Barbara County Medical Society met in regular monthly session at the Arlington Hotel on Monday, December 13, 1915. The meeting was called to order by the President, Dr. William H. Flint, at 8 p. m., the Secretary, Dr. Barry, at his desk. Present: Drs. Barry, Campbell, Flint, C. S. Stoddard, T. A. Stoddard, and Wells, a total of six members—not guests and no visitors. The minutes of the preceding session (a joint meeting with the Ventura County Medical Society) were read and approved. The chair then called for clinical cases.

Dr. Wells described an operation for the opening and draining of the antrum of Highmore. A trocar of special construction is first passed into the antrum and the opening enlarged to an aperture of about three-eighths of an inch in diameter, thus securing immediate and permanent drainage.

Dr. Barry described an interesting and important case of "cut throat" coming under his observation and care. The wound was sub-mental (?) and consisted of a clean razor cut deep into the tissues of the neck, extending down quite to the anterior wall of pharynx; it was about two inches in length, and located between the thyroid cartilages and the hyoid bone. The patient was admirably controlled by subcutaneous injection of hyoscine (gr. 1/100), morphia (gr. 1/4), atropine (gr. 1/200), and the wound carefully closed with a double row of oocutgut sutures, superficial and deep. The result was perfect, and by first intention throughout, without a particle of septic infection. The final scar will be thin and small.

The President next called for the paper and discussion of the evening: "Present orthopedic surgery at the military hospitals of France and England," by Dr. T. A. Stoddard, recently returned from Paris and Liverpool. This report was listened to with the closest attention, being a revelation to many of what the French, and particularly the English (who lead in this specialty) orthopedic surgeons are doing for the crippled feet and limbs of their injured soldiers.

The names of Dr. Horace F. Pierce of Santa Barbara, and Dr. Fred A. Brown of Lompoc were presented for membership and ordered referred to the Board of Censors for report and recommendation.

Meeting adjourned.

WILLIAM T. BARRY, Secretary.

X-RAY SOCIETY.

The Pacific Coast Roentgen Ray Society, which was organized in June, 1915, had a meeting, held at the Hotel Plaza, on December 11, consisting of business sessions in the morning and the following papers in the afternoon:

Fifteen Years' Experience in the Treatment of Breast Cancers, by Dr. Albert Soiland of Los Angeles.

Recent Observations on Deep Therapy, by Dr. Wm. B. Bowman of Los Angeles.

Bone Tumors, by Dr. W. W. Boardman.

Demonstration of Plates, by Dr. Geo. L. Painter and Dr. Howard E. Ruggles.

We would appreciate it if you could include an account of this meeting in the Society Reports of an early issue.

HOWARD E. RUGGLES, Secretary.

LOS ANGELES COUNTY.

Eye and Ear Section.

Regular meeting of the Eye and Ear Section was held in the office of Dr. A. L. Kelsey, Brockman Building, on November 1, 1915. Attendance: Drs. Montgomery, F. L. Rogers, Sweet, Stephenson, True, Detling, Reynolds, Graham, Kyle, Griffith, Old, Bullard, Dudley, Fleming, Hastings, Harris, Kelsey, Lund, G. W. McCoy, R. W. Miller, Stivers. Visitors: Drs. Shultz and Rochester.

On roll-call the following cases were reported:

Dr. Hastings—Removal of fragments of eggshell from the larynx of a child; child had had croup for a week, gradually got worse, persistent dyspnea. Father reported that child had eaten soft-boiled egg and had choked. Child was turned upside down and efforts made to remove the condition, but the child grew worse as the days went on. On examination could not see in the larynx with mirror; father did not want operation done, but the child got worse and tracheotomy was done, then a tube was put in the throat and the eggshell seen and removed with forceps; the tracheal tube was left in ten days. Eggshell specimens were shown.

Dr. Harris reported case of retained nerve sheath in the left eye of a girl; vision is good except for astigmatism. The supra temporal vein is very much uncovered.

Second case, of voluntary ability to turn left eye outward. The entire family has defective eyesight. Sister of 16 has amblyopia—this condition improved under glasses; has 10% of esophoria which will eventually necessitate operation.

Dr. R. W. Miller asked what operation is contemplated. Answer—Advancement and tenotomy of the external rectus.

Dr. Dudley asked was the vision of nerve case affected? Answer—It is almost normal.

Dr. R. W. Miller asked was the form field taken? Answer—No.

Dr. A. L. Kelsey made a subsidiary report to the traumatic case reported at the last meeting.

Dr. G. W. McCoy reported a double frontal external operation. The case had pain for three months—removed all the turbinates. On examination X-ray was negative; Wassermann negative; Tbc. test negative. Probe went freely into frontals. Transillumination gave a shadow. Right side was done first, pus was found under pressure; left side done subsequently. Deformity is unnecessary as I have shown in a dozen cases. Discussion by Drs. Bullard, Griffith and Hastings. The latter said: "I do not believe that Dr. McCoy has entirely obliterated the frontal in the case reported."

Dr. Lund—Q. Does Dr. McCoy enlarge the frontal nasal duct and then irrigate? Answer—Yes, as freely as possible.

Dr. Montgomery reported case and specimen of papilloma of the larynx in a patient of 55, first

seen when the patient was 51 when removal was advised. Patient did not have the operation. Saw him again four years later with a large growth on the left vocal cord extending far backwards and frontwards and up from the true cords. Removed by snare a small piece and two weeks later removed second piece, a small portion remains on the anterior commissure.

Second case also a papilloma of the larynx in a child.

Third case specimen of nasal polyp removed by sickle knife from the posterior tip of the middle turbinate. This polyp measured 3 in. by 1½ in. by ¼ in.

Fourth case autopsy finding of osteosarcoma at County Hospital. This tumor growing from the anterior fossa of the skull. Discussion: Dr. Kyle and Dr. R. W. Miller.

Dr. Hastings also reported case operated on for papilloma, 15 years afterwards the patient had carcinoma; many laryngologists saw the case during the interim but none of them diagnosed it carcinoma.

Dr. Fleming contrasted direct and indirect laryngoscopy. He predicted that the indirect method of operation is apt to disappear entirely.

Dr. Stivers reported a case for plastic operation on the nose and showed plaster cast of same.

Discussion: Dr. Kyle—Q. Does cartilage unite to cartilage? Ans. This case has not been operated on but in three other cases I have obtained satisfactory results.

Dr. Shuck of New York stated that he had seen Dr. Carter operate on several cases in the New York Eye and Ear Hospital; the house staff did not at that time have a high opinion of the results of Dr. Carter's operations on noses because several pieces of bone came out after transplantation. I, myself, saw several cases result unsuccessfully where bone came out. The technic was by inserting bone graft in the nose through an external incision into the section of the nose.

Dr. Stivers said Dr. Carter's new technic is to insert the bone graft into place through an internal incision made under the mucous membrane and skin in the external.

Dr. Stephenson reported a case of interstitial keratitis with Hutchinson teeth, opacity of the cornea, now taking atoxyl. Atropine to keep the pupil dilated so she has some vision around the central corneal opacity. Dr. Bullard; discussion; Neo-salvarsan is used with success in these cases; in one case 8 doses of neo-salvarsan with recovery; it was given intravenously.

Dr. Detling reported case of adhesion of the palate to the pharyngeal walls. Wassermann test was negative; patient is now under anti-syphilitic treatment.

Second case of healed labyrinthitis. There are many such cases running around, many show symptoms similar to bilious attacks.

Dr. Lund, in discussion: Had atresia case similar to the one reported by Dr. Detling. I dissected the palate free, then had dentist make a plate and by rubber tubes fastened to it held the palate away and from the pharynx walls with success.

Dr. Sweet of Long Beach reported a case of papilloma.

New Business: Dr. Dudley asked for adoption of the following amendments to Article I, Section 4, Paragraph 4:

An Executive Committee composed of the Chairman, Vice-Chairman, Secretary and one member selected by the Chairman.

Amendment to Article II, Section 4:

The Chairman, Vice-Chairman, Secretary and one member appointed by the Chairman shall constitute the Executive Committee.

The application of Dr. Tholen was referred to the proper committee.

SAN FRANCISCO COUNTY. 1916 OFFICERS.

At the annual meeting of the San Francisco County Medical Society, held on December 14th, the following officers were elected for 1916:

President, Cullen F. Welty; first vice-president, F. W. Birch; second vice-president, H. W. Gibbons; secretary-treasurer, René Bine; librarian, Leo Eloesser.

PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of November, 1915, the following meetings were held:

Section on Medicine, Tuesday, Nov. 2d.

1. Consideration of some neurological disorders of children. Harold Wright.
2. Lues of the lungs. Hans Lisser.
3. Roentgenograms of pulmonary lues. H. E. Ruggles. Discussed by G. H. Evans, H. B. Graham and H. Lisser.

General Meeting Tuesday, Nov. 9th.

LANE HOSPITAL CLINICAL EVENING.

1. Nephritis in acute infections. E. C. Dickson.
2. Nephritis in arteriosclerosis. H. P. Hill.
3. The importance of functional tests in the diagnosis of nephritis. Thomas Addis.
4. The pathology of (a) infectious nephritis, (b) arteriosclerotic nephritis. W. Ophüls.
5. The surgical treatment of nephritis. R. L. Rigdon.
6. The medical treatment of nephritis. R. L. Wilbur.

Section on Surgery, Tuesday, Nov. 16th.

1. Presentation of cases. P. L. Campiche. (a) Angular deformity of femur, with much shortening; treated by linear osteotomy; also ankylosis of elbow corrected by a resection with arthroplasty. (b) Transverse fracture of patella, wired with silver wire. (c) Fracture of humerus with muscular interposition. Muscles dissected and fragments wired. (d) Forward dislocation of the head. Etiology probably syphilis. Cases discussed by J. T. Watkins.
2. Presentation of case of renal calculi. M. Krotoszyner.
3. Personal experiences with X-rays in gynecologic practice. H. J. Kreutzmann.
4. The X-ray in the treatment of hyperthyroidism. H. E. Ruggles. Discussed by W. W. Boardman, Saxton Pope, H. J. Kreutzmann and H. E. Ruggles.

Section on Eye, Ear, Nose and Throat, Tuesday, Nov. 23d.

1. Presentation of cases by A. Green, G. H. Willcutt, W. S. Franklin and L. A. Smith.
2. The relation of iritis and iridocyclitis to constitutional diseases. A. B. McKee.
3. Infantile blennorrhea; their differential diagnosis and treatment. W. S. Franklin. Discussed by A. B. McKee, K. Pischel, M. W. Fredrick, H. Barkan and W. S. Franklin.
4. Some positive eye values in brain tumors. Hans Barkan. Discussed by W. S. Franklin, A. Green, W. F. Schaller, K. Pischel and H. Barkan.
5. The ocular symptoms of tabes. W. F. Blake. Discussed by Hans Lisser, Hans Barkan, W. F. Schaller and W. F. Blake.

Section on Urology, Tuesday, Nov. 30th.

1. Difficulties encountered in the diagnosis of some urinary conditions. R. L. Rigdon. Discussed

by Frank Hinman, M. Krotoszyner, J. V. Leonard and Henry Meyer.

2. Large cysts in the bladder. Henry Meyer. Discussed by R. L. Rigdon, A. B. Grosse and Henry Meyer.

3. Serodiagnosis of gonorrhea. M. Krotoszyner. Discussed by A. B. Grosse, J. C. Spencer, J. V. Leonard, M. Wolff, R. L. Rigdon, E. E. Johnson and M. Krotoszyner.

4. Second thoughts about salvarsan therapy. W. E. Stevens. Discussed by M. Krotoszyner.

5. Report of a case of vesical calculi. J. C. Spencer. Discussed by M. Krotoszyner.

During the month of December, 1915, the following meetings were held:

Tuesday, December 7th.

ST. LUKE'S HOSPITAL CLINICAL EVENING.

1. Demonstration of Cases of Enlarged Spleens. Wm. Kenney. (By courtesy of B. Stone and J. M. Macdonald.) Discussed by H. C. Moffitt, A. Newman and W. Kenney.
2. Complete Removal of Parotid Gland with Conservation of the Facial Nerve. J. Henry Barbat. Discussed by A. Newman and H. Henry Barbat.
3. Splenectomy for Pernicious Anemia; Report of Case. Harry M. Sherman. Discussed by H. C. Moffitt, P. H. Pierson and Harry M. Sherman.
4. Linitis Plastica; with Presentation of Specimen. G. M. Barrett.
5. Report of a Medical Case (retained Murphy button for ten years). H. P. Hill. Discussed by J. Henry Barbat.
6. Instructive and Interesting X-Ray Plates. G. J. McChesney, H. E. Ruggles.

Tuesday, December 14th.

ANNUAL MEETING.

Presidential Address by Herbert C. Moffitt, M. D.

It is a privilege of your retiring president to give the Society his views, more or less personal, of policies affecting the Society and the profession at large. My predecessor, Dr. O'Neill, has had some of his valuable suggestions embodied this year in the Constitution and By-laws recently adopted by the Society. From the reports of the Executive Committee and the Secretary you will learn of work that has been done and of plans that have not yet matured. Any discussion of the future of this Society, as of any collection of medical men, must be based upon a realization of certain tendencies in medicine, and certain forces in society which are leading to a readjustment of the physician's activities in the community.

The man of ancient medicine spoke with the authority of a philosopher and priest as well as physician. In the Middle Ages, with the decline of medicine, ignorance and mysticism deservedly weakened his position. In both epochs, however, his relation to his patient was a personal, intimate one—service to the individual was everything, service to the community hardly recognized. With the development of scientific medicine, with the work of Pasteur and the study of infectious diseases new problems of preventive medicine and sanitation demanded the help of the physician in their solution. The community, the individual and the physician have all benefited by the change.

We have learned more fully that there are many things in medicine besides the giving of drugs, we have realized that our duties do not end with prescribing for the patient; we have been convinced that, even with the individual, community of service is demanded by his best interests. Socialism in place of individualism tends to dominate certain branches of medicine. There is danger in

this changed relation of doctor and patient of losing the great power for good of the personal factor in medicine, of losing touch with the old art and craft of the profession, of losing sight of the psychical as well as the physical forces which make for the best healing.

There is danger, also, in the rapid rush of modern events of being hurried to extremes, or whirled on aimless tangents. There was never more need by the physician of a sane general and medical education, of a foundation strengthened by mutual support, of the stability which bases on sound judgment and experience. It is a mistake to think that reforms in medicine or in the relation of the physician to his fellows, to his patients or to the community, will come through legislation. The public has been ready to recognize the achievements of modern medicine and it is ready to be guided by the profession if the profession speaks with unanimity and authority. Too often physicians give half-baked opinions, or foolish interviews, or malicious criticism of the work of others, without considering the effect upon the valuation of medicine and medical men by the individual or by the community. We are all too prone to give opinions and advice without proper study and reflection. Is it any wonder that people doubt, that they lose faith in medicine, that they seek help and faith elsewhere when physicians so often show little respect for each other, when varying opinions are given by different men on wholly insufficient data and study, when patients are rushed into dangerous new treatments or operations without proper realization of either danger or end results to be expected? There is need all over America at the present time of wise conservatism, there has been too much emotion and too little reason in many of our new ventures; there is great need of it in our own profession whose members too quickly adopt new remedies, new literature, new schemes, new operations without due reflection and discussion.

There is danger that **specialism** may narrow so far as to obstruct clear view of our profession into its fields of individual and public effort. We all realize the tremendous conquests that have been made in special fields. We all recognize the need of the specialist in our modern life, and we feel that much of our work in the future will be done by groups of specialists laboring together for the common good of individuals or communities. Moreover, we shall always need the stimulus of workers who labor in pure research far from the active front of our profession. And yet there is danger that the specialist fix his attention too closely upon one phase of a process or disease rather than upon the man or woman who is sick. There is danger of exploiting the patient for the specialty. There is danger that work be done to enhance the prestige of specialties rather than medicine, that the patient be studied only with the specialty in mind, that results be judged from effects produced on local processes rather than from changes brought about in the physical and mental make-up of the man. Narrow specialism tends to obscure proper judgment of results, to encourage immature publication of methods of treatment and to lead to undue reactions in both profession and public. We have magnified specialties too much in our schemes of education and, I think, in our present methods of conducting society discussions. We should bring back the specialists more frequently to our general meetings and frankly try to judge of the limits to which specialism should develop. We should hear more of the fundamental reasons that decide for a special operation or method of treatment and know more of the end results of such procedures before they are widely tried or brought before the public.

Fortunately, with all the faults inherent in its

members as sons of men, the medical profession has clung fast to certain high principles and ideals. There is no collection of men that so honestly criticizes its own failures, so earnestly endeavors to fit itself better for public and private service, so unselfishly devotes itself to the prevention or amelioration of some of the world's worst evils. If anyone has lost faith in the high aims of medicine or has doubted that our profession, in the mass, is unstirred by the best ideals, let him read the recent inspiring address of Dr. S. J. Meltzer on "The Mission of Medical Science and Medical Men."

How can we best raise the standards of our local profession, make of its members wiser and saner men, increase its usefulness to medicine and the community?

1. I think it is absolutely necessary to have a suitable dignified home for the Society. Not a few rooms in an office building but a **home**. Suitable accommodations should be provided for general meetings and for special meetings and demonstrations, as well as for our growing library.

2. I would advocate greater centralization of effort among medical men of the city. All good men in the profession should be brought into the Society. Cults and pathies can gradually be modified by proper education and fair treatment. Think of the educational possibilities if there were one great medical institution in San Francisco backed by a united profession! The various hospitals of the community could be made part of the central scheme, and various groups of men could contribute to the education of each other and the community without suspicion of ulterior motives.

3. I would suggest that we have more general meetings of the Society. Meetings of specialists could be held in different rooms, or at different times, or in connection with the general meetings. There would be, of course, no thought of limiting the work in special fields or of losing the inspiration from special workers in our own or distant communities. Clinical and pathological demonstrations are often more interesting and instructive than formal papers and some such scheme as inaugurated by the present Executive Committee might well be continued. It is not desirable that all papers read in the Society should be published. Suitable rooms should be provided for the demonstration of patients and pathological specimens. It would be of great service to the general profession if frequent opportunity could be given to compare clinical findings with the results given in operative or autopsy reports. Members should be encouraged to present cases or problems to the Society for discussion.

4. Meetings with civic or other bodies interested in public welfare and in public health should, if possible, be arranged. Only questions of definite import which have the backing of a united profession should be discussed at these meetings. Aimless discussion of fads, of untried methods of treatment, of foolish legislation should be tabooed. Honest criticism of medical men and medical methods from laymen should be welcomed. The County Society should come to be regarded as an authority to which to appeal on matters concerning preventive and curative medicine. Appeals for publicity to individual members should with propriety be referred to the Society's Public Health Committee.

There may be a possibility under my able successor of meeting our material needs. Is there not also a possibility of some adjustment of personal differences, of the abolition of unkindly criticism and gossip, of some union of effort for the advancement of the dignity and usefulness of our profession, and for the establishment of some authoritative standard of medicine in our midst?

REPORT OF THE SECRETARY-TREASURER.

As Secretary I beg leave to submit the following report for the year 1915; that is, from December 7, 1914, to December 14, 1915.

The total number of members for whom we have paid assessments to the State Society is 589 as against 597 last year. Eight of the members reported have died, making our present membership 581.

Twenty-five members were dropped March 1st for non-payment of dues.

In order to entertain the American Medical Association in San Francisco during June, 1915, funds were raised, for the most part, among our members. After paying all bills, the balance was given us by the A. M. A. Committee of local men.

In accordance with our usual custom, the accounts have been audited from July 1, 1914, to July 1, 1915, by a certified accountant.

The detailed financial statement follows:

FINANCIAL STATEMENT.

Balance on hand December 8, 1914.....\$ 1,001.30

Receipts.

Dues	\$8,095.10
Physicians' Relief Fund—	
Interest on bonds, 5 Pac. Tel. & Tel.,	
5 Spring Valley Water.....	450.00
Rental of Library.....	75.00
Repayment on binding, phones, etc..	10.60
A. M. A. Fund.....	1,558.31—\$10,189.01
	\$11,190.31

Disbursements.

Library—	
Binding	\$ 222.65
Subscriptions and supplies.....	524.27
Improvements: Lights, clock, screen,	
etc.....	189.55
Medical Society of California—	
Assessment	3,492.00
One-half rent in lieu exchanges....	180.00
Rent	1,200.00
Salaries	1,380.00
Printing	293.25
Stationery (including stamps).....	310.94
Telephone	139.35
Kohler & Chase (rental of hall).....	15.00
Towel service	16.50
Water and paper cups.....	28.25
Dues to Chamber of Commerce and	
San Francisco Housing Commission..	70.00
Physicians' Relief Fund.....	444.00
Flowers, etc., deceased members....	22.90
Certified accountant	50.00
Sundries (insurance premiums, office	
supplies, rental safe deposit box,	
etc.)	68.25
Christmas present (Butler Building	
employees) 1914.....	10.00
Operating lantern	32.50
A. M. A. fund.....	1,558.31—\$10,247.72

Balance December, 14, 1915.....\$942.59

The following bills remain to be paid:

Progressive Medicine, 1915.....	\$ 13.00
Water and towel service.....	2.50
Telephone (November and December)	
about	20.00
State Society (1 new member).....	6.00
Operating lantern	2.50
Two "Handy Pad" calendars.....	1.00
Christmas present (Butler Building em-	
ployees and postman)	15.00—\$60.00
December rent of library.....	100.00
Salaries for December.....	115.00—\$215.00
Subscriptions to foreign journals (about).	
	380.00

Total

Balance December, 14, 1915.....\$942.59

Amount due (approximate)..... 655.00

Surplus

The Society now has the following:	
Bonds: 5 Pac. Tel. & Tel., 5 Spring	
Valley Water	\$10,000.00
Cash: A. M. A. fund.....	1,558.31
Interest on bonds (Savings Union)...	860.83—\$12,419.14

Incidentally, the Society is deeply indebted to D. Appleton & Company, and J. B. Lippincott Company, who have, through the kind efforts of their local representatives, donated to the Society the books which they had on display in the Emergency Hospital of the Panama-Pacific International Exposition. These books will be shortly released from

the Exposition and will then appear on our shelves.

Respectfully submitted,

RENÉ BINE, Secretary.

REPORT OF LIBRARIAN.

To the President and Members of the San Francisco County Medical Society—Gentlemen:

During the past year we have purchased. 4 vols. Received from the California State Journal

of Medicine	105 "
By gift	162 "
Bound by the Society	202 "

Total

We are receiving regularly 173 journals. This shows a slight falling off from last year, due to the discontinuance of some of the foreign publications. Five new journals have been added to our list.

Disbursements—

Binding	\$222.65
Subscription and supplies.....	524.27

\$746.92

In the library drawer, collected from fines, telephones, etc., there are \$38.00.

LEO ELOESSER, Librarian.

REPORT OF THE EXECUTIVE COMMITTEE.

To the Board of Directors:

The Executive Committee wishes to submit the following report:

This committee has met nine times during the year, and while the Board of Directors has referred much of the business of the Society to this committee for special investigation, only a few transactions are here especially mentioned.

First—During the early part of this year the epidemic of diphtheria in North Beach appeared to be getting past the control of the health officers and their staff. It was then that this committee, after consultation with the health officers, arranged to have on February 9, 1915, a joint meeting of the County Medical Society and the Board of Health, and invited to this meeting the Board of Education, Board of Supervisors, Board of Public Works, Civic League, Chamber of Commerce and Commonwealth Club, all of this city, to discuss ways and means for controlling this epidemic. While only one of the Board of Supervisors responded to the invitation, and only Superintendent Roncovieri and Miss Regan of the Board of Education, Mr. Judell of the Board of Public Works and Mrs. Graupner of the Civic League accepted; yet the Board of Supervisors responded to a petition to have the nursing force under the health officer increased to such an extent that it was possible to handle the situation. It is hoped that this is the beginning of a definite policy in this city to have the County Medical Society stand as an advisory board in matters of public health.

Second—In January this committee opened negotiations with the San Francisco Chamber of Commerce and the Commonwealth Club to interest these bodies jointly with the County Medical Society in matters of public health. It was found physically impossible to hold joint meetings, but both organizations were very much interested in the idea; and in order to affiliate as closely as possible, the president of each of these organizations asked President Moffitt of the County Medical Society to appoint the chairman of the medical committee of each of these organizations. Dr. R. Wilbur was appointed chairman of the Public Health section of the Commonwealth Club, and Dr. William Dorr, chairman of the Health Committee of the Chamber of Commerce. In June the Commonwealth Club gave over one of its regular meetings to the discussion of county hospitals in California. The Chamber of Commerce has given the Board of Directors to understand that

it will promote any plan the Society will develop that will benefit the public health. It is believed that these affiliations should be carefully fostered in the future.

Third—The Board of Directors decided that the Constitution and By-laws of the San Francisco County Medical Society were inadequate for the present needs, and instructed the Executive Committee to reconstruct them in order to make the Society more representative, more democratic, less unwieldy, and more permanent in its organization. To this end the new by-laws (which have been adopted by the Society) provide for the election of the president and other officers by the Society at large; that matters affecting the general policy of the Society be referred to the general Society; that the business of the Society be conducted by fewer committees; and that the members of the Board of Directors be elected for three years, one-third vacating the office each year.

Fourth—The proposition concerning the so-called Medical Syndicate Building was referred to this committee and discussed in conference with the chairman of the Finance Committee. After careful consideration the Executive Committee recommended to the Board of Directors that on completion of such a building, the County Medical Society should occupy space in the same at a nominal rent, but that the Society shall not persuade its members to invest in these bonds as we have no way of estimating the probable outcome of such an undertaking. The committee believes that if the Society should promote this affair, it would be morally responsible, even though not legally responsible for its outcome.

Fifth—At the April meeting of the Board of Directors, this committee called the board's attention to the fact that there are 600 members of the medical profession in the County of San Francisco who are not members of the County Medical Society. The committee recommended that the Committee on Admissions be instructed to prepare a list of the non-members who would be acceptable to this Society; that each month at least twenty-five of these names be most carefully considered, and those found satisfactory be invited to become members of this Society; that the Committee of Admissions obtain an interview with the physicians invited in order to persuade them to become members; that the Committee on Admissions be asked for a monthly report on the advance of this work, and that the men so invited be sent five consecutive monthly programs. Up to date the Board of Directors has received no report as to the progress of this work.

Sixth—In order to make the County Medical programs fit the needs of physicians doing general practice, it was decided that there should be fewer set papers and more demonstrations of clinical material. In order to establish the education value of this method, it was considered most feasible, in the beginning at any rate; to obtain the assistance of the staffs of the various hospitals throughout the city. As the material in these quarters is more abundant, the facilities for working up the cases excellent, it was felt that the various hospitals would take considerable pride in producing a program of value; and it was recommended to the board that the hospitals accepting our invitation be given an annual meeting, at which patients would be demonstrated, cases reported and pathological material shown. That this method has been a success up to date, is shown by the packed houses at all of the hospital evenings.

It is believed that this method will make clear to the minds of many of our medical men the importance of conserving their clinical material and demonstrating the same to the Society. It is hoped that the future administrations will follow out some such plan, unless a method is developed for securing clinical material for pro-

grams which will better meet the needs of the general practitioner.

The work of this committee this year has made it clear that the greatest fault of the Society is the lack of a definite outline to its policy. With the annual change of officers come new enthusiasms, new ideas and new aims, most of which die with the administration. Perhaps this fault might be corrected if the President-elect would outline in an inaugural address the plans which he expects to put into effect for the coming year, in order that the members of the Society, the Board of Directors, and the committees could all work with a definite aim. At the close of the year, if the President would call attention to both the faults and the virtues of his schemes, and pass on to the next administration all the plans which have not been completed, with a discussion as to how they may be completed and the expected results, this would materially improve the Society.

To this end, this committee respectfully requests the President-elect to consider the feasibility of such a plan.

Respectfully submitted,

HAROLD BRUNN,
RAY LYMAN WILBUR,
FAYETTE WATT BIRTCH, Chairman.

REPORT OF THE MILK COMMISSION.

The Milk Commission of the San Francisco County Medical Society consists of Dr. Adelaide Brown, President; Dr. E. C. Fleischer, Secretary, and Drs. Blum, Gibbons, Yerington and Mr. Nathan Moran.

Since December, 1914, eleven regular meetings have been held. At one meeting no quorum was present.

No new dairy has been certified this year. The dairies supplying milk are:

	Quarts.		
Timm	1548	Sacramento	108
		Dixon	48
Hutton	896	Stockton	57
		Richmond	18
		Dixon	96
		Crockett	2
Sleepy Hollow.....	1458	San Rafael	120
		Sausalito	53
		Mill Valley	37
		Belvedere	14
San Ramon.....	438		553
	4340		
	553		
	3687 locally		

The Southern Pacific boats and trains are also supplied from the Dixon dairies.

The San Ramon dairy has recently been leased by Mr. Timm and through it we hope to be able to bring in certified bulk milk for use in hospitals.

Under the City Board of Health's inspection Mr. Collins of San Leandro has been furnishing "inspected milk" in bulk for the use of hospitals, where milk is served uncooked to patients and nurses. Such milk is used at Lane and Mt. Zion Hospitals, but the matter of educating managements of hospitals to a public health measure which adds to the cost of the maintenance is very slow and difficult. Your commission feels that this work can be more vigorously pursued by them when one of its own dairies furnishes the supply, and if as physicians you will demand it.

During the year monthly inspections have been made by the commission's inspector of the conditions under which milk is handled in San Fran-

cisco. The privilege of selling certified milk has been taken from one distributor for continuous failure to keep the bottles iced.

The subject of the health of the employees has been considered several times during the year. The typhoid carrier, the diphtheria carrier and streptococcic sore throat are menaces to a milk supply. On the other hand the help on a dairy is a shifting matter and a rigid and thorough medical examination at the frequent intervals necessary to **exclude** these cases would add enormously to the cost of production, hence to the cost of the consumer. Up to date we have given careful instructions to the owners to report **at once** any case of sickness on the dairy or in the town and to isolate the sick person, thus making the owner apprehensive rather than relying too much on the commission's examinations.

This course has resulted in a telephonic report to us of a case of smallpox in Dixon last winter, when we ordered the employees on the dairy quarantined from the town and vaccinated. No further case in the town came down, so that in fourteen days the quarantine was lifted. In a second dairy the proprietor phoned at 3 a. m. to your Secretary and President in regard to a case of measles in the foreman's family. The foreman was directed to clean up thoroughly and eat and sleep for three weeks away from home and the other children were sent off the ranch. No second case resulted.

The question of health of employees is one of our most urgent problems and your commission will cordially receive any advice in its solution.

The American Association of Medical Milk Commissions met in San Francisco in June. They were entertained by the Alameda County and the San Francisco County Medical Milk Commissions and held their sessions at the University of California and at the Civic Center in San Francisco. The meetings were a source of profit to your commission, but the personal acquaintance with others who have taken up this problem for their communities counted far more.

The University of California continues to do the chemical and bacteriological work for the commission as well as the semi-monthly inspections of the dairies and the semi-annual tuberculin tests.

The last semi-annual tuberculin test is as follows:

March, 1915.	Cows Tested	Condemned
Sleepy Hollow.....	298	10
May, 1915.		
Hutton Bros.	204	7
August, 1915.		
Timm	350	7
San Ramon	141	1
	993	25

Less than 2.5% reactors, ordinary herd 40 to 60%. The intradermal and the subcutaneous tests are used alternately; each test seems to eliminate certain animals not reacting to the previous test. All additions to the herd are submitted to the subcutaneous test.

You will realize the cost of certified milk is eternal vigilance on the part of your commission. For the eleven months beginning January 1, 1915, 88 chemical tests and 93 bacteriological tests have been made.

Fat was found nine times below 3.5, ranging from 3.3 to 3.45 and five times the bacteriological test was found above 10,000 ranging up to 22,000. Each dairy offended once and one twice in the year. The counts average below 5,000, many times running below 2,000 per cc. When average milk of excellent quality ranges from 50,000 to 100,000 you realize that a good technique is carried on daily at your dairies.

The tax of 50c per thousand caps finances the

commission. The year 1914 closed with a balance of \$200.47 and on December 1, 1915, the books show a balance of \$115.30 with outstanding bills \$82.00, making our total assets \$197.30.

Respectfully submitted,

ADELAIDE BROWN, President.

Officers for 1916.

President

CULLEN F WELTY

1st Vice-President

F. W. BIRTCH

Secretary-Treasurer

RENÉ BINE

2nd Vice-President

H. W. GIBBONS

Librarian and Curator

LEO ELOESSER

Board of Directors

1. Birtch, F. W. St. Luke's Hospital
2. Carpenter, F. B. 209 Post Street
3. Draper, A. L. 126 Stockton Street
4. Ebright, G. E. 209 Post Street
5. Giannini, A. H. Bank of Italy, Market and Mason Streets
6. Graham, H. B. 209 Post Street
7. Graves, J. H. 987 Valencia Street
8. Hill, H. P. 177 Post Street
9. Horn, Henry. 209 Post Street
10. Jones, P. M. 135 Stockton Street
11. Kenyon, C. G. 291 Sutter Street
12. Lucas, W. P. University Hospital
13. Maher, T. D. 16th and Mission Streets
14. McChesney, G. J. 350 Post Street
15. Morrow, H. T. 135 Stockton Street
16. Ophüls, Wm. Lane Hospital
17. Porter, L. 240 Stockton Street
18. Ryfkogel, H. A. L. 162 Post Street
19. Smith, R. K. 391 Sutter Street
20. Tait, F. D. 135 Stockton Street
21. Wymore, W. W. 86 Post Street

Executive Committee

ARTHUR FISHER, Chairman

John H. Graves

Saxton Pope

The San Francisco Polyclinic Clinical Evening.

Tuesday, December 21, 1915.

1. Case Recording with Lantern Slides. H. D'Arcy Power.
2. Modification of the Lane Plate in Fractures of the Jaw. C. G. Levison. Discussed by S. Hyman, G. H. Taubles and J. T. Watkins.
3. Demonstration of Cases of Trachoma Treated with Carbon Dioxide Snow. A. S. Green.
4. Diagnosis of Abdominal Tumor. P. K. Brown.
5. Relation of Certain General Nutritive Disturbances to the Development of Sterility in Women. A. J. Lartigau.
6. Ano-Rectal Colonic Symptoms and Conditions arising from Genito-Urinary Diseases, and vice versa. A. J. Zobel.

Eye, Ear, Nose and Throat Section.

Tuesday, December 28th.

1. Demonstration of Case of Labyrinthine Fistula. K. Pischel. Discussed by G. P. Wintermute, H. Horn, C. F. Welty, T. G. Inman, H. G. Graham and K. Pischel.
2. Routes of Infection in Tuberculosis. W. Ophüls. Discussed by C. F. Welty, J. J. Kingwell, H. Horn, J. von Werthen, H. S. Moore, H. B. Graham and W. Ophüls.
3. Tuberculosis in Children; its Relation to the Eye, Ear, Nose and Throat. Discussed by A. S. Green, H. B. Graham, K. Pischel, W. P. Lucas and W. F. Blake.
4. Surgery of the Glands of the Neck. B. S. Stevens.

Dr. Hans Barkan was elected Chairman, and Dr. A. S. Green Secretary for 1916.

DEPARTMENT OF PHARMACY AND CHEMISTRY.

Edited by FRED I. LACKENBACH.

(Devoted to the advancement of Pharmacy and its allied branches; to the work of the Council on Pharmacy and Chemistry of the American Medical Association, and to matters of interest bearing upon the therapeutic agents offered to the medical profession. The editor will gladly supply available information on matters coming within the scope of this Department.)

NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Nonofficial Remedies, 1915, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Euresol Pro Capillis.—Euresol (see New and Nonofficial Remedies, 1915, p. 268) perfumed to render it suitable for scalp lotions. Merck & Co., New York (Jour. A. M. A., Dec. 4, 1915, p. 2009).

Pollen Extract (Pollen Vaccine).—A solution of pollen protein. It is used for the relief or prophylaxis of a common type of hay fever (pollinosis). Before using it the patient's susceptibility and tolerance should be determined. Treatment with pollen extract has seemed to give relief in some cases.

Hay Fever Vaccine, Mulford (Autumnal).—Pollen extract prepared from ragweed. Marketed in packages of four syringes containing, respectively, 0.0025 mg., 0.005 mg., 0.01 mg. and 0.02 mg. of pollen protein. Also in separate syringes containing 0.02 mg. pollen protein. The H. K. Mulford Co., Philadelphia, Pa. (Jour. A. M. A., Dec. 4, 1915, p. 2009).

Mercuric Succinimide, Merck.—A non-proprietary brand of mercuric succinimide admitted to New and Nonofficial Remedies. Merck & Co., New York (Jour. A. M. A., Dec. 4, 1915, p. 2009).

Morphine Meconate, Merck.—A non-proprietary brand of morphine meconate admitted to New and Nonofficial Remedies. Merck & Co., New York (Jour. A. M. A., Dec. 4, 1915, p. 2009).

Swan's Staphylococcus Bacterin (No. 37).—Marketed in packages of six 1 cc. vials and in 20 cc. vials. Swan-Myers Company, Indianapolis, Ind.

Swan's Streptococcus Bacterin (No. 43).—Marketed in packages of six 1 cc. vials and in 20 cc. vials. Swan-Myers Company, Indianapolis, Ind.

Calcium Peroxide, Merck.—A non-proprietary brand of calcium peroxide admitted to New and Nonofficial Remedies. Merck and Company, New York.

Sodium Peroxide, Merck.—A non-proprietary brand of sodium peroxide admitted to New and Nonofficial Remedies. Merck and Company, New York.

Zinc Peroxide, Merck.—A non-proprietary brand of zinc peroxide admitted to New and Nonofficial Remedies. Merck and Company, New York.

Ethyl Salicylate, Merck.—A non-proprietary brand of ethyl salicylate admitted to New and Nonofficial Remedies. Merck and Company, New York.

Osmic Acid, Merck.—A non-proprietary brand of osmium tetroxide admitted to New and Nonofficial Remedies. Merck and Company, New York.

Sodium Oleate, Merck.—A non-proprietary brand of sodium oleate admitted to New and Nonofficial Remedies. Merck and Company, New York.

Thiosinamine, Merck.—A non-proprietary brand of thiosinamine admitted to New and Nonofficial Remedies. Merck and Company, New York.

Urea, Merck.—A non-proprietary brand of urea admitted to New and Nonofficial Remedies. Merck and Company, New York.

Ampules Sodium Cacodylate, Mulford, 7¼ grains.—Each ampule contains sodium cacodylate 0.5 gm. H. K. Mulford Company, Philadelphia, Pa.

Ampules Sodium Cacodylate, Mulford, 15 grains.—Each ampule contains sodium cacodylate 1 gm. H. K. Mulford Company, Philadelphia, Pa.

Ampules Solution Pituitary Extract, Mulford, 0.5 cc.—Each ampule contains solution pituitary extract 0.5 cc. H. K. Mulford Company, Philadelphia, Pa. (Jour. A. M. A. Dec. 11, 1915, p. 2085).

Scarlatina Strepto-Serobacterin, Mulford (Therapeutic), (Sensitized Scarlatinal Streptococcic Vaccine). Marketed in packages of four syringes. H. K. Mulford Company, Philadelphia, Pa. (Jour. A. M. A. Dec. 18, 1915, p. 2167).

Quinine Dihydrochloride (Quininae Dihydrochloridum).—The dihydrochloride of the alkaloid quinine. Since quinine dihydrochloride is very soluble, its use has been proposed where concentrated solutions of quinine are wanted, as for subcutaneous injections and similar purposes.

Ampules Quinine Dihydrochloride, Mulford, 0.24 gm.—Each ampule contains 0.24 gm. Quinine dihydrochloride in 1 cc. of sterile solution. H. K. Mulford Company, Philadelphia, Pa.

Ampules Quinine Dihydrochloride, Mulford, 0.5 gm.—Each ampule contains 0.5 gm. quinine dihydrochloride in 1 cc. of sterile solution. H. K. Mulford Company, Philadelphia, Pa. (Jour. A. M. A. Dec. 18, 1915, p. 2167).

Purified Tricresol, Mulford.—A mixture of isomeric cresols, corresponding closely to Cresol, U. S. P. H. K. Mulford Company, Philadelphia, Pa. (Jour. A. M. A. Dec. 18, 1915, p. 2167).

Iodosticks (Iodine 60 per cent. and Potassium Iodide 40 per cent.).—Wooden sticks 1½ inches long, tipped with a mixture of iodine 60 per cent. and potassium iodide 40 per cent. Antiseptic Supply Co., New York (Jour. A. M. A. Dec. 18, 1915, p. 2167).

Iodoapplicators and Idoapplicators, Special (Iodine 60 per cent. and Potassium Iodide 40 per cent.).—Wooden sticks 6½ and 12 inches long, respectively, tipped with a mixture of iodine 60 per cent. and potassium iodide 40 per cent. Antiseptic Supply Co., New York (Jour. A. M. A. Dec. 18, 1915, p. 2167).

G. Strophanthin (Thoms) Merck.—A non-proprietary brand of ouabain, crystallized. Merck and Company, New York.

Mercury Biniodide Oil Solution in Ampules, H. W. and Co.—One cc. of solution contains red mercuric iodide in a neutral fatty oil, 0.01 gm. (1/6 grain). Hynson, Westcott and Co., Baltimore, Md.

Mercuriol Tablets, ¼ gr.—Each tablet contains mercuriol 0.016 gm. Parke, Davis and Co., Detroit, Mich.

Mercuriol Tablets ½ gr.—Each tablet contains mercuriol 0.03 gm. Parke, Davis and Co., Detroit, Mich.

Mercuriol Tablets, 1 gr.—Each tablet contains mercuriol 0.065 gm. Parke, Davis and Co., Detroit, Mich.

Mercuriol Tablets, 2 gr.—Each tablet contains mercuriol 0.13 gm. Parke, Davis and Co., Detroit, Mich.

Mercuriol with Potassium Iodide Tablets.—Each tablet contains mercuriol ¼ gr. and potassium iodide 1 gr. Parke, Davis and Company, Detroit, Mich.

Iodalbin and Mercuriol Tablets.—Each tablet contains iodalbin 5 grs. and mercuriol 1 gr. Parke, Davis and Co., Detroit, Mich.

Liquid Petrolatum, Merck.—A non-proprietary brand of liquid petrolatum, U. S. P. It is made from American petroleum. It is colorless, non-fluorescent, practically odorless and tasteless. Merck and Co., New York (Jour. A. M. A. Dec. 25, 1915, p. 2239).

ITEMS OF INTEREST.

Salvarsan Made in U. S.—Because of the shortage due to the war, salvarsan is made and offered for sale under its chemical name to physicians and hospitals urgently in need of it by the dermatologic laboratories of the Philadelphia Polyclinic. Dr. Jay F. Schamberg, the director of the Department of Dermatological Research, states that the product made by the dermatologic laboratories has been employed on hundreds of cases with excellent therapeutic results and with no reports of accident or untoward complications (Jour. A. M. A. Dec. 18, 1915, p. 2179).

Incompatibility of Quinine with Aspirin.—Experiments have shown that weak acids, such as acetylsalicylic acid (aspirin) citric, malic, acetic or tartaric acid under the influence of heat may convert quinine into its poisonous isomer quinotoxin and cinchona into cinchotoxin. The danger of the formation of quinotoxin in the body cannot be great. Ready-made mixtures of quinine or cinchona preparations with weak organic acids should be avoided (Jour. A. M. A., Dec. 18, 1915, p. 2187).

Proprietary Digitalis Preparations.—The Council on Pharmacy and Chemistry reports that it is becoming increasingly apparent that the tincture of digitalis produces the full therapeutic effects of digitalis, and that when it is properly made it is as staple as any liquid preparation of digitalis now available; and that the tincture has the systemic side actions of digitalis, including the emetic, in no greater degree than the various proprietary preparations of this drug. Strophanthin and crystallized ouabain are now available in sterile solutions in ampules and afford a convenient means of promptly securing the cardiac action by intramuscular or intravenous injection (Jour. A. M. A. Dec. 4, 1915, p. 2024).

Orthoform—New.—Treasury Decision 2194 contemplates registration of orthoform-new under the Harrison Narcotic Law (Jour. A. M. A., Dec. 25, 1915, p. 2257).

Poslam.—The A. M. A. Chemical Laboratory in 1909 found that essentially Poslam consisted of zinc oxide 12.01 parts, sulphur 6.67 parts, corn starch 22.00 parts, tar oil 15.18 parts, menthol and salicylic acid, small quantities, fatty base to make 100 parts. For skin affections which may be benefited by ointments the official ointments are as effective as the proprietary products and have the added advantage of being of known and more uniform composition (Jour. A. M. A. Dec. 25, 1915, p. 2256).

Ozomulsion.—This "patent medicine" long sold as a consumption "cure," has been declared misbranded under the Food and Drugs Act, the therapeutic claims being both false and fraudulent. The preparation was found to be an emulsion of cod liver oil, with glycerine and phosphorus compounds of calcium and sodium (Jour. A. M. A. Dec. 18, 1915, p. 2184).

Dr. Pierce's Pleasant Pellets.—The A. M. A. Chemical Laboratory reports that the pills responded to tests for emodin and aloin. Essentially, Pierce's Pleasant Purgative Pellets appear to be an ordinary laxative pill. That the active principle of aloes was found in the pills is of interest in view of the fact that the leaflet advertising Pierce's Pleasant Pellets warns the public against the use of purgatives composed of aloes (Jour. A. M. A., Dec. 4, 1915, p. 2025).

THE OATH OF HIPPOCRATES.

I swear by Apollo, the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this oath and stipulation: to reckon him who taught me this art equally dear to me as my parents, to share my substance

with him and relieve his necessities if required; to regard his offspring as on the same footing with my own brothers, and to teach them this art if they should wish to learn it, without fee or stipulation, and that by precept, lecture and every other mode of instruction, I will impart a knowledge of the art to my own sons and to those of my teachers, and to disciples bound by a stipulation and oath, according to the law of medicine, but to none others.

I will follow that method of treatment which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked, nor suggest any such counsel; furthermore, I will not give to a woman an instrument to produce abortion.

With purity and with holiness I will pass my life and practice my art. I will not cut a person who is suffering with a stone, but will leave this to be done by practitioners of this work. Into whatever houses I enter I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption; and further from the seduction of females or males, bond or free.

Whatever, in connection with my professional practice, or not in connection with it, I may see or hear in the lives of men which ought not to be spoken abroad, I will not divulge, as reckoning that all such should be kept secret.

While I continue to keep this oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men at all times; but should I trespass and violate this oath, may the reverse be my lot.—Journal of the American Medical Association.

STATE BOARD OF HEALTH MEETING.

At the regular meeting of the California State Board of Health held in Sacramento, January 8, 1916, a physician of Contra Costa County appeared before the Board to explain his failure to report a case of typhoid fever in an employee of a dairy, among the customers of which eight cases of typhoid fever developed. In his defense the physician stated that he had had a Widal reaction done at the State Board of Health's Hygienic Laboratory in Berkeley and that he considered that sending a specimen of blood to the Laboratory for examination was equivalent to notification. He was warned that formal notification to the health officer is necessary, in order that the provisions of the law may be complied with, regardless of laboratory assistance received.

Resolutions were passed directing local registrars not to file any birth certificates after the expiration of a reasonable time after birth, a period of one year from date of birth being fixed as such reasonable time within which birth certificates may be filed by local registrars. The state registrar was directed not to accept any birth certificates that have been filed after a period of one year from date of birth.

The matter of compelling treatment of dangerous syphilitic patients was taken up by the Board, and inquirers were informed that under the law the State Board of Health can not compel treatment of any kind, but it can isolate persons dangerous to the public health.

In addition to these matters, permits for the disposal of sewage were granted; certificates as registered nurses were granted to three applicants, and the following hospitals having training schools were placed upon the accredited list: Northern California Hospital, Eureka; St. Francis Hospital, Santa Barbara; Alta Bates Sanatorium, Berkeley; City and County Hospital, San Francisco; Mater Misericordia Hospital, Sacramento; Alameda Sanitarium, San Jose; Roosevelt Hospital, Berkeley.

CO-OPERATION IN INDUSTRIAL HEALTH INSURANCE LEGISLATION.

At the request of the American Association for Labor Legislation, the Council on Health and Public Instruction of the American Medical Association has appointed a committee to assist in drafting a health insurance bill to be introduced into the legislatures in session in 1916. The committee consists of Dr. Alexander Lambert of New York, chairman; Dr. Henry B. Favill of Chicago, and Dr. Frederic J. Cotton of Boston. The preparation of this bill and the plans for its immediate introduction into several legislatures have removed health insurance from the realm of academic discussion and have placed it in the front rank of the pressing practical questions confronting the medical profession. The Association for Labor Legislation, which is responsible for this bill, has been influential in securing the enactment of workmen's compensation laws in thirty-three states within five years. It has also worked for protection against industrial disease, and drafted the federal law abolishing the use of poisonous phosphorus in matches. In its legislative program it has been backed by progressive employers, by representative labor leaders and by members of the medical profession interested in industrial diseases. Every extension of its activities in the field of industrial hygiene has made increasingly clear the absolute necessity for making systematic provision for sickness of working men, which is possible only through a comprehensive system of health insurance. In preparing its bill, which is the next step in health legislation, the association wisely has recognized that adequate medical care is of the first importance, both to the wage-earner and to his family, and it has been equally wise in asking the co-operation of medical men in drafting those provisions which affect physicians. The certainty that such laws will be enacted within a few years, the success of the American Association for Labor Legislation in obtaining the legislation it advocates, and the consideration shown to the medical profession have convinced the Council on Health and Public Instruction that co-operation is desirable and opportune. This close co-operation will guarantee that the best interests of the medical profession under health insurance will be borne in mind at every step.—Journal A. M. A.

"KIDNEY CURES" SEIZED.

Action against several so-called "kidney cures" has recently been taken under the Food and Drugs Act by the United States Department of Agriculture. In one case the shippers of a preparation labeled as "A Sure Cure for Bladder and Kidney Trouble," were prosecuted on the charge of falsely and fraudulently misbranding the product. They pleaded guilty and were fined \$25 and costs by the court. This particular kidney "cure" was found to contain over 41 per cent. of alcohol. It was labeled "Old Jim Fields Phosphate Dill and Gin Mankind's Greatest Friend. A Sure Cure for Bladder and Kidney Trouble. It is also a Great Aid in Case of Urinary Trouble. Allenberg & Meister, Sole Agents, Memphis, Tenn." An analysis of the product showed that it contained no material amount of either dill or phosphate.

In another case 48 bottles of "Stuart's Buchu and Juniper Compound," prepared by the Stuart Manufacturing Company, Atlanta, Georgia, were seized. The court issued a decree of condemnation, forfeiture, and destruction on the ground that the claims upon the label were misleading, false, and fraudulent. On this label the manufacturers recommended their product as a remedy for a great variety of kidney and bladder diseases and stated that the medicine contained 16 per cent. of alcohol.

According to the medical experts of the Depart-

ment, alcohol is a kidney irritant and is dangerous in many cases of kidney disease. For this reason many physicians advise their patients who suffer from any kind of kidney or bladder trouble to abstain from the use of alcohol even in moderate quantities. Some manufacturers of kidney medicines which contain considerable quantities of alcohol also advise their customers to abstain from all alcoholic drinks, showing in this way that they know the harmfulness of alcohol in kidney diseases, even though they use it in their own preparations. It is the opinion of the medical experts of the Department that such so-called "kidney remedies" as those recently seized are not only worthless but actually harmful, because of the amount of alcohol which they contain.

THE FACTOR OF POVERTY IN SANITATION

The factor of poverty in sanitary problems was discussed in Washington, November 26, by Surgeon-General William C. Gorgas, whose success in cleaning up Havana and the Panama Canal zone have brought him recognition as America's leading sanitarian. His audience was the Clinical Society of Surgeons, assembled in their twenty-fourth annual meeting. Dr. Gorgas said, in part:

"Such sanitary work as is necessary in the tropics is inexpensive, but measures directed against special disease are not the greatest good that can be accomplished by sanitation.

"Before these great results that we can all now see are possible for the sanitarian, we shall have to alleviate more or less the poverty at present existing in all civilized communities. Poverty is the greatest of all breeders of disease and the stone wall against which every sanitarian must finally impinge.

"During the last ten years of my sanitary work I have thought much on this subject. Of what practical measure could the modern sanitarian avail himself to alleviate the poverty of that class of our population which most needs sanitation? It is evident that this poverty is principally due to low wages; that low wages in modern communities are principally due to the fact that there are many more men competing for work than there are jobs to divide among these men. To alleviate this poverty two methods are possible, either a measure directed toward decreasing the number of men competing for jobs, or, on the other hand, measures directed toward increasing the number of jobs.

"The modern sanitarian can very easily decrease the number of men competing for jobs; if by next summer he should introduce infected stegomyia mosquitoes at a dozen different places in the southern United States he could practically guarantee that when winter came we would have several million less persons competing for jobs in the United States than we have at present. This has been the method that man has been subject to for the last six or seven thousand years, but it does not appeal to me, nor, I believe, to yourselves. This method is at present being tried on a huge scale by means of the great war in Europe. I do not think that I risk much in predicting that, when this war is over and we shall have eliminated three or four million of the most vigorous workers in Europe, wages will rise and for a long time no man will be unable anywhere in Europe to get a job at pretty fair wages.

"But I am sure that every sanitarian would much rather adopt measures looking toward the increase of jobs rather than, as we have done in the past, submit to measures that decrease the number of competitors for jobs.

"I recently heard one of the members of the Cabinet state that in the United States 55 per cent. of the arable land, for one reason or another, is being held out of use. Now suppose in the United

States we could put into effect some measure that would force this 55 per cent. of our arable land into use. The effect at once would be to double the number of jobs. If the jobs were doubled in number wages would be doubly increased. The only way I can think of forcing this unused land into use is a tax on land values.

"I therefore urge for your consideration, as the most important sanitary measure that can be at present devised, a tax on land values."

INDIGENT TUBERCULOTICS.

Whereas, The death rate from tuberculosis in California and other southwestern states is very large, reaching, for example, the rate of 362.5 per hundred thousand population in one county of California and a corresponding rate of 192.5 for the state as a whole; and

Whereas, This high death rate is largely due to the influx, from all the other states of the union, of tuberculous patients, who are, most of them, in advanced stages of the disease and financially unable to provide proper care for themselves; and who, therefore, wander from county to county, unable to exercise proper precautions to prevent infecting others; and

Whereas, The only opportunity for the great majority of tuberculosis patients to obtain necessary hospital care is at public expense in county hospitals, as is shown by the facts that seventy-five per cent. of the patients dying of tuberculosis in California have an annual family income of less than one thousand dollars, and twenty-seven per cent. of all children who have received state aid as orphans or half-orphans in California in the year 1914 lost one or both parents through tuberculosis; and

Whereas, There are only 906 beds available for tuberculous patients in county hospitals in California, while the average annual number of deaths is over 5000, and the counties containing the largest proportion of cases from other states are unable to bear alone the double burden of caring properly for the non-resident and the resident tuberculous even with the recently provided state aid for the latter; and a similar lack of bed capacity exists in the other southwestern states; and

Whereas, Recent investigations by the United States Public Health Service show that there is an annual migration of between 10,000 and 15,000 tuberculous persons to the western and southwestern states, and that from 30 to 50 per cent. of these patients die within six months after their arrival, and further, that from 40 to 90 per cent. of all deaths from tuberculosis in the west and southwest are natives of other states; therefore, be it

Resolved, That the California State Board of Health endorses the Federal Bill which will provide for the payment of a subsidy to hospitals maintaining standards of equipment, diet and care established by the United States Public Health Service, and caring for tuberculous patients who are not residents of the State in which they are; and be it further

Resolved, That copies of these resolutions, together with copies of the Federal Bill, be transmitted to the Secretary of the Treasury of the United States, the Surgeon-General of the Public Health Service, to the Representatives in Congress from California, to the Boards of Health of all the states, to the National Association for the Study and Prevention of Tuberculosis, to the American Public Health Association, and to the American Medical Association.

An Act to Provide Federal Aid for Indigent Persons Afflicted with Tuberculosis in State or Other Institutions when such Indigent Persons are not Citizens of the State Where such Institutions Are Located.

Be it enacted by the Senate and House of Rep-

resentatives of the United States of America in Congress assembled:

Section 1. That the Treasury Department, through the Public Health Service, shall provide Federal aid for the benefit of indigent persons afflicted with tuberculosis who are not residents of the state in which such indigents are; and further, that it shall provide for standardizing rules and regulations of diet, hygienic requirements, care and attention for such patients.

Sec. 2. That each and every hospital and sanatorium within any state, territory, or the District of Columbia, desiring to care for the class of cases mentioned in Section 1 of this Act, shall make application to the Secretary of the Treasury, on the blank prescribed for the purpose. If on inspection by an officer of the Public Health Service, the hospital making application is found to conform to a standard of diet, hygienic requirements, care and attention, established by the Treasury Department, said hospital may be designated as an auxiliary hospital and may receive aid for non-resident tuberculous indigents, in a sum not to exceed five dollars per week per patient, provided that said hospital shall conform to the regulations established by the Treasury Department for hospitals receiving aid under this Act.

Sec. 3. That every such indigent patient prior to such aid being granted must state under oath whether he has been assisted by any person or any institution to leave his own state or country, and what was the nature of such assistance, and that proof of such assisted migration shall render him ineligible to benefits under this Act, provided that the Treasury Department may pay the subsidy if it is satisfied that the object of such assistance was not the obtaining of the subsidy, and false testimony shall further subject such person to punishment for perjury.

Sec. 4. That all institutions receiving such Federal aid shall report at such times as the Secretary of the Treasury shall designate, and further shall be subject at all times to Federal inspection.

Sec. 5. That the Secretary is authorized and directed to refuse aid or assistance to or through any institution wherein sanitary, dietetic and other conditions are not maintained in accordance with the requirements laid down by said Secretary. Furthermore, the Secretary of the Treasury is authorized and directed to refuse aid to or through any institution or hospital organization that shall assist in migration of any indigent tuberculous patient.

Sec. 6. That the Secretary of the Treasury is authorized to make such regulations as are necessary to carry out the provisions and intent of this Act.

Sec. 7. That \$25,000 shall be appropriated for the administration of this Act, and that a sum not exceeding \$2,000,000 be appropriated for aid under the terms of this Act.

REPORT OF INDUSTRIAL ACCIDENT COMMISSION.

On December 1st the Industrial Accident Commission reported to Governor Hiram W. Johnson its transactions for the fiscal year ending June 30, 1915. This report covers the Department of Compensation, Insurance and Safety, with their allied sections, and is accompanied by a full statistical report of the 62,211 industrial accidents that occurred in California during 1914. These accidents were divided as follows: deaths, 678; permanent injuries, 1,292; temporary injuries, 60,241.

The Commission points with satisfaction to the large number of acceptances of compensation received from employers in the exempted classes of agricultural and kindred callings and household domestic service. The last report, covering the

first six months of 1914, showed that 2,820 employers had filed with the Commission written acceptances of the compensation provisions of the law. During the year ending June 30th last, 4,038 additional acceptances were filed, making a total of 6,858. These voluntary acceptances brought many thousands of employees under the benefits of the Workmen's Compensation, Insurance and Safety Act.

It is shown that there has been a change in sentiment concerning the new system and that workmen's compensation is now universally regarded as an equitable method of providing a limited income for those who are hurt while at work, in comparison to the inequities that prevailed under employers' liability.

Five decisions on cases appealed from the awards of the Commission were handed down by the Supreme Court of the State of California up to June 30th last. In the case of Joseph Cardoza, the Supreme Court denied an application for a writ of review on the ground that it was not competent for the court to pass upon the question as to whether or not the findings of the Commission are sustained by the evidence and that the Commission had the right and power to decide finally whether or not the applicant had discovered new evidence material to him.

In the case of George W. Smith, the District Court of Appeal, Second Appellate District, affirmed the award of the Commission in favor of the defendant Southern Pacific Company on the ground that petitioner was a special officer or watchman at the time of his injury, which occurred while he was engaged in preventing trespassers from boarding an overland train. It was contended that the Federal Employers' Liability Act brought this case under interstate commerce.

An important decision was rendered in the case of the appeal of the Great Western Power Company against the decision of the Industrial Accident Commission. It was held that James Mayfield met his death as a result of wilful misconduct and the court laid down this rule:

"But it cannot be doubted that a workman who violates a reasonable rule made for his own protection from serious bodily injury or death is guilty of misconduct and that where the workman deliberately violates the rule, with knowledge of its existence and of the dangers accompanying its violation, he is guilty of wilful misconduct."

In the case of San Francisco Stevedoring Company the Supreme Court affirmed the Commission in holding that it is not without jurisdiction over a proceeding by an employee for compensation for injuries received by him in the course of his employment, even though he had failed successfully to maintain a suit in the Superior Court, on the ground that it was necessary to show the employer's gross negligence or wilful misconduct and no such allegations were made in the complaint.

The appeal of Olson & Mahony S. S. Co. against the Commission's award to an employee who sustained an injury on a ship in the dry dock was settled and dismissed upon the payment of \$500.

Number of Formal Cases Heard.

The report of the Compensation Department deals with the methods of conducting cases in which there are disputes between employers and employees or other interested parties. Mention is made of the plans followed to avoid formal hearings and to reach an amicable agreement between the parties whenever a dispute arises. There was a steady increase in the number of cases filed for decision, there being 1,151 filed during the last fiscal year, 23 arising under the law of 1911 and 1,128 under the present law, an average of 96 per month. The issue in 331 of the cases decided during the fiscal year was the extent and duration of disability. There were 15 other issues on which

the remainder of the cases hinged. Wilful misconduct was an issue in 23 cases and intoxication in 7 cases. Important questions are pending in the appellate courts as to whether the Industrial Accident Commission has extra-territorial jurisdiction and whether the employer can invoke the Federal law limiting liability when a vessel is lost.

The Method of Rating Permanent Injuries.

The Permanent Disability Rating Department scientifically rates permanent injuries according to the nature of the injury or disfigurements, the occupation and the age. This plan enables compensation to be awarded according to loss of earning power. California is the only State possessing this method of computation.

Medical Assistance in Administering the Act.

The Medical Department arranges for the examination and treatment of injured men when there are disputes as to the nature and extent of disability. It also supplies information on all questions of a medical character and assists in determining the status of injured men whenever called upon. The standards of surgical results are very high. It is more and more recognized that better surgery throughout the State diminishes disabilities and therefore decreases compensation payments. Plans for an X-ray Museum are under way and the indications are that there will shortly be a complete series of examples of all bone injuries. The attitude of the medical profession towards the Workmen's Compensation, Insurance and Safety Act is now cordial.

Splendid Record of State Compensation Insurance Fund.

The success of the State Compensation Insurance Fund has been noteworthy. At the close of the first year (1914) the fund had written \$547,161.24 in net compensation insurance premiums, or approximately \$144,000,000 in excess of the writings of its nearest competitor. A refund to policyholders of 15 per cent. of earned premiums was allowed as policies expired and actual payroll expenditures of insured employers were ascertained. The total amount of this refund was approximately \$75,000. It is estimated that an additional refund of 28 per cent. will be returned to policyholders, or a total dividend of 43 per cent. At the end of the first year (1914) the rate schedule was readjusted, resulting in an average reduction of 10 per cent. The merit system of rating has been applied to all manufacturing risks and this resulted in a further average reduction. The Fund continued to co-operate with the Workmen's Compensation Service Bureau with reference to initial rates. A systematic and successful safety campaign has been conducted among those employers holding policies in the Fund. From January 1, 1914, to June 30, 1915, 5,861 cases of accidental injury were reported to the Fund. Of these cases 37 resulted in death, 83 in permanent injuries and 5,392 were temporary injuries. Of the total cases reported 349 were rejected as creating no liability on the part of the Fund.

The Safety Department Vital to Act's Success.

The Industrial Accident Commission considers its Safety Department the most important of all the departments. The prevention of industrial accidents attracts general attention. Compensation at best is a poor substitute for an injury.

Co-operation of a cordial nature developed during the past year. "Safety First" Conferences were held in the large cities and were addressed by leading employers and employees. As a result, committees representing the California Employers' Federation and the California State Federation of Labor in the north, and the Merchants' and Manufacturers' Association and the Central Labor Council of Los Angeles, have met in conference to pre-

pare General Safety Orders for California. In addition, these committees have assisted in the formation of sub-committees to prepare orders for the different industries.

An attractive exhibit was maintained at the Panama-Pacific International Exposition. Plants to the number of 746 were visited and safety requirements affecting 76,843 employees were installed. Safety bulletins have been issued in English, Italian, Russian, Croatian, Spanish, Portuguese and Greek. An exhibit of safety devices has been prepared to send to the public schools of the State, under the auspices of the Extension Department of the University of California.

The Safety Museum at 525 Market street, San Francisco, has been enlarged, and another museum started in the Union League Building in Los Angeles.

The National Safety Council was joined and a San Francisco branch of the Council formed.

A committee representing the California Metal Producers' Association and the organizations of mine employees prepared Mine Safety Rules for the State. U. S. mine-rescue cars visited the mining districts and the Universities of California and Stanford. The co-operative agreement with the U. S. Bureau of Mines was continued. First-aid instruction was given the miners by a Government expert. Nearly all the mines of the State were visited and the suggestions for safety were generally adopted. Dredges were also examined by the mining engineer and plans formulated to give employees safe working conditions.

Statistical Report Gives Striking Data.

A study of the sixty-odd thousand accident reports for the year 1914 reveals some interesting features of California's industrial problems. 678 workmen of an average age of 39 suffered death. About 48 per cent, of those killed left 625 people totally dependent. The average age of those widowed through industrial accident is about 39 years. These widows on an average must provide for about $2\frac{1}{4}$ children of an average age of 9 years. To help meet this burden, employers and insurance companies have already paid \$243,366.00, and payments will continue for four and one-half years from date of accident.

One thousand two hundred and ninety-two workmen suffered nearly all the conceivable forms of physical mutilation. Parts or all of over 600 fingers were cut off; 172 eyes are either missing or have suffered serious impairment of vision; 28 arms and 45 legs were amputated; 31 men were sufficiently disabled to require a life pension. To repair and relieve these workmen, already \$604,743.00 has been paid, and payments will continue, in some cases, as long as life lasts.

The 60,241 men and women who received injuries which left no permanent effect, did suffer sufficiently, however, to require the expenditure of over one million dollars to cure and relieve them from the effects of the injuries.

The time lost through the sixty-odd thousand temporary injuries is equivalent to about 3000 men being laid up for the entire year.

UNITED STATES PUBLIC HEALTH SERVICE

Boards will be convened at the Bureau of Public Health Service, 3 "B" Street, S. E., Washington, D. C., and at a number of the Marine Hospitals of the Service, on Monday, January 24, 1916, at 10 o'clock a. m., for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the Public Health Service.

The candidate must be between 23 and 32 years of age, a graduate of a reputable medical college, and must furnish testimonials from two responsible

persons as to his professional and moral character, together with a recent photograph of himself. Credit will be given in the examination for service in hospitals for the insane, experience in the detection of mental diseases, and in any other particular line of professional work. Candidates must have had one year's hospital experience or two years' professional work.

Candidates must be not less than 5 feet, 4 inches, nor more than 6 feet, 2 inches, in height, with relatively corresponding weights.

The following is the order of examination: 1, Physical; 2, Oral; 3, Written; 4, Clinical.

Candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate.

Examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise covers the various branches of medicine, Surgery and Hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital.

The examination usually covers a period of about ten days.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order. They will receive early appointments.

After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Passed assistant surgeons after twelve years' service are entitled to examination for promotion to the grade of surgeon.

Assistant surgeons receive \$2,000, passed assistant surgeons \$2,400, surgeons \$3,000, senior surgeons \$3,500, and assistant surgeon-generals \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40, and \$50 a month, according to the grade, is allowed.

All grades receive longevity pay, 10 per cent. in addition to the regular salary for every five years up to 40 per cent. after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For invitation to appear before the board of examiners, address "Surgeon-General, Public Health Service, Washington, D. C."

SUMMARY OF THE ANNUAL REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES PUBLIC HEALTH SERVICE.

The annual report of the Surgeon-General of the United States Public Health Service records the largest amount of work performed in the history of that organization. Since the passage of the law of 1912 the public health functions of the Service have materially broadened, thereby increasing greatly its usefulness to the American people. Throughout the report the economic importance of disease prevention is made apparent to the reader.

Perhaps the most important achievement of the year was the discovery that pellagra is a deprivation disease, resulting from a faulty diet containing an excess of carbo-hydrates. While the final experiments which led to this discovery have only recently been completed, the conclusion itself is the culmination of investigations extending over a period of seven years. The work has consisted of epidemiological field studies, actual feeding experiments conducted at numerous places in Georgia and Mississippi, and experimental research at Spartanburg, South Carolina, and other places.

A new national quarantine station was opened at

Galveston, Texas, and the control of the Boston station was transferred to the Public Health Service. A great reduction in immigration has been observed during the year, with a corresponding increase in the number of aliens certified. At the Port of New York, the percentage has risen from 2.29, previous to the development of the European conflict, to 5.37 since that time, this increase largely being due to the fact that with the decreased immigration more time can be devoted to the examination. The number of cases treated at Marine Hospitals and relief stations exceeded 55,000, 15,000 of which were hospital patients, a considerable increase over previous years. The Coast Guard Cutter "Androscoggin" was fitted out as a hospital ship and now affords relief to deep sea fishermen on the Banks of Newfoundland.

On the occurrence of plague at New Orleans, the first outbreak upon the Gulf seaboard, the state and local health authorities requested the Public Health Service to take charge of the situation. Extensive rat-proofing and other anti-plague measures were undertaken, resulting in the eradication of the disease from among human beings, and the practical extermination of the rodent infection.

Great reduction in the incidence of malaria was obtained in localities where surveys were conducted. Drainage projects, rice culture studies and the conditions surrounding the impounding of water for power purposes were investigated in order to eradicate as far as possible the disease in these areas. Scientific investigations of malarial infection showed that in the latitude of this country the most important agent in carrying the infection through the winter season is man, and not the infected, hibernating, Anopheles mosquitoes as was previously supposed. From the standpoint of prevention this is a discovery of considerable value.

Studies of occupational diseases and industrial hygiene were instituted at several places during the year. A survey of the industries of Cincinnati was made to determine the cause of the prevalence of tuberculosis among industrial workers. The investigations relating to the migration of persons suffering from tuberculosis were completed.

Upon the request of the health authorities of five states, the organization and operations of the respective boards of health were studied and recommendations advanced for improvement in the powers and duties of these bodies. The health organizations of several cities were likewise investigated.

Investigations of the pollution of streams and the examination of shellfish were also conducted.

Trachoma was combated in the Appalachian Mountains, where it is most prevalent, over 12,000 cases being treated. Surveys in certain states during the year showed that the disease is not an uncommon infection.

Rural sanitation work was conducted in six different states and everywhere resulted in the reduction of typhoid and other communicable diseases.

Public health laboratories for the prevention of the interstate spread of disease were established at Chicago, Seattle, and numerous other railway centers.

Additional duties have been imposed upon the Service by extension of relief benefits to the newly organized Coast Guard and the physical examination of seamen applying for the rating of "able seaman." For this reason, and because of the greatly increased health functions of the Service, an increase in the commissioned personnel is recommended. An additional building for the hygienic Laboratory and the establishment of a National Leprosarium for the proper segregation and care of cases of leprosy are also recommended.

CARELESSNESS AND ACCIDENTS.

Five hundred and twenty-five vehicle drivers on the Pacific Coast did their best to break into a railroad crossing accident in the two years ended June 30, 1915, despite the fact that gates were down and warning bells ringing. This is shown in a report of the Southern Pacific Company, which reveals that during the period mentioned 525 crossing gates were broken by drivers who risked life and limb for speed and carelessness. The gamble taken by the drivers is obvious. To be broken the gates had to be down, and the gates are down only when trains are approaching. The railroad company spends over \$100,000 annually to operate and maintain crossing gates, but feels that the active co-operation of motorists and other vehicle drivers is imperative if crossing accidents are to be minimized.

Recently the Southern Pacific had observations taken at various crossings throughout the state to observe how careful drivers were in approaching the tracks. Of 17,021 motor vehicles observed, 11,836 drivers, or 69½%, looked neither way before crossing the tracks; 2.7% looked one way only, and but 27.8% looked in both directions. The almost incredible number of 3301, or 19.3% of the total number of drivers observed, ran over the crossings at a reckless rate of speed. But 35 drivers stopped their machines before crossing the tracks to see that no trains were approaching.

NEW MEMBERS.

Hanlon, E. R., Los Angeles.
 Rogers, A. C., Los Angeles.
 Stovall, Leonard, Los Angeles.
 Flagg, D. P., Los Angeles.
 Athon, L. H., Los Angeles.
 Blanchard, Wm. O., Los Angeles.
 Gray, Etta, Los Angeles.
 Dodge, Wm., Los Angeles.
 Derrick, Joseph, Los Angeles.
 Dozier, Earnest, Redding.
 Hughes, H. W., Los Angeles.
 Carter, W. E., Los Angeles.
 Gerson, T. P., Los Angeles.
 Metcalf, Clair F., Los Angeles.
 Seaman, E. D., Los Angeles.
 Johnson, P. V. R., Los Angeles.
 Platt, I. S., Los Angeles.
 Carter, Martin G., Los Angeles.
 Levin, Z., Los Angeles.
 Norton, C. W., Los Angeles.
 Moore, M. L., Los Angeles.
 Sugarman, Herman, Los Angeles.
 Kearney, Elizabeth F., Los Angeles.
 White, P. G., Los Angeles.
 Jacobs, Edw. H., Los Angeles.
 Wilson, H. P., Los Angeles.
 Franklin, J. W., Los Angeles.
 Tower, Franklin J., Los Angeles.
 Bancroft, I. R., Los Angeles.
 Jackson, J. A., Hollywood.
 Taggart, T. E., Los Angeles.
 Hoag, E. B., Pasadena.
 Zuill, W. L., Los Angeles.
 Hanson, Wayne P., Los Angeles.
 Carson, Emma M., Los Angeles.
 Du Bois, Willard Cecil, Santa Ana.
 Gates, Amelia L., San Francisco.
 Hill, Earl W., Eureka.
 Pierson, P. H., San Francisco.

DEATHS.

Atkinson, H. H., Harpoot, Turkey.
 Bullard, Rose Talbott, Los Angeles.
 Bryant, Edgar Reeve, San Francisco.
 Craig, Thos. L., Soledad.
 Jenkins, John E., Los Angeles.
 Martineaut, E. D., San Francisco.

RESIGNED.

Carter, J. M. G., Los Angeles.